UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
TOXIC SUBSTANCES CONTROL ACT (TSCA)
SCIENCE ADVISORY COMMITTEE ON CHEMICALS (SACC)

September 10 –12, 2019, Public Meeting
Ad Hoc Participants' Biographical Sketches
Docket Number: EPA-HQ-OPPT-2019-0235

James D. Blando

Affiliation: Associate Professor, School of Community and Environmental Health, College of Health Sciences, Old Dominion University, Norfolk, Virginia

Expertise: Exposure assessment, air pollution, industrial hygiene

Education: PhD in Environmental Science, Rutgers University, New Brunswick, New Jersey
MHS in Industrial Hygiene, Johns Hopkins University, Baltimore, Maryland
BS in Environmental Science, Rutgers University, New Brunswick, New Jersey

Experience Summary: Dr. James Blando is an Associate Professor of Environmental and Occupational Health at Old Dominion University with nine years of teaching and academic research experience. Prior to his faculty appointment, Dr. Blando was a researcher for 12 years at the New Jersey Department of Health and Senior Services where he designed and conducted several diverse projects in environmental and occupational health. In addition, Dr. Blando has several years of practical field experience in industrial hygiene and has been an industrial hygienist with Exxon-Mobil, Schering-Plough Pharmaceuticals, and AT&T Bell Labs (now called Lucent). Dr. Blando conducted the first study of 1-Bromopropane (1-BP) use in the drycleaning industry and published articles on cases of 1-BP toxicity in 2008 and occupational exposure in 2010. Currently his research covers a broad spectrum of environmental and occupational health issues and injury prevention issues.

Panel Experience: Dr. Blando participated as a panel member for the United States Environmental Protection Agency (EPA), FIFRA Scientific Advisory Panel (SAP), Evaluation of a Proposed Approach to Refine the Inhalation Risk Assessment for Point of Contact Toxicity: A Case Study Using a New Approach Methodology (NAM) (December 2018). He is currently serving as a committee member at the Virginia Biomonitoring Advisory Committee, Richmond, Virginia (2018–present).
He was invited as a panel member for the National Institute for Environmental Health Sciences (NIEHS), Grading the Quality of Evidence for Complex Interventions Panel B, Spring 2017. Dr. Blando previously served on the peer review committees: Agency for Toxic Substances and Disease Registry (ATSDR), for 2-Hexanone Toxicology Profile, Atlanta, Georgia (2016), and the EPA's Chemical Safety Advisory Committee, Sub-Committee on 1-Bromopropane (2016).

GEORGE P. COBB

Affiliation: Professor, Department of Environmental Science, Baylor University, Waco, Texas

Expertise: Environmental chemistry, analytical chemistry, and exposure assessment

Education: PhD in Chemistry, University of South Florida, Gainesville, Florida
BS in Chemistry, College of Charleston, Charleston, South Carolina

Experience Summary: Dr. George Cobb is a professor of Environmental Science and Department Chairman at Baylor University. He has 30+ years of experience assessing fate and effects of chemicals in the environment. Dr. Cobb has published over 130 peer reviewed journal articles in this area of inquiry and has successfully assessed adverse effects that contaminants cause in organisms, both in environment and controlled laboratory studies. Successful field assessments have included normal-use pesticide applications, National Priorities List sites, and state and municipal air and water quality. Most recently, Dr. Cobb's group has emphasized: nanomaterial alteration of amphibian development and of rice accumulation of metal toxicants; interactions of toxicants and light to induce stress; airborne steroid movement from concentrated animal feeding operations; explosive transformation in mammals; and ultra-high-resolution Mass Spectrometry screening. With the American Chemical Society, he was named a Fellow, and served as the immediate past Chairman of the Environmental Chemistry Division, and a member of the Committee for Environmental Improvement. Dr. Cobb is a former President of the Society of Environmental Toxicology and Chemistry. He currently serves as an Editor for the *Journal Environmental Toxicology and Chemistry*.

Panel Experience: U.S. Environmental Protection Agency (EPA) Science Advisory Board: Chemical Assessment Advisory Committee: IRIS Assessment for Hexahydro-1,3,5-trinitro1,3,5-triazine (2016–2017). TSCA SACC on PBT chemicals (2018). EPA Scientific Advisory Panels (15 reviews completed, Rapporteur 4, 1999–present). Addressing topics related to ecological and human health risk assessments, from the inception of Ecological Committee on FIFRA Risk Assessment Methods (ECOFRAM) (1999) through recent RNAi assessments for crop protection.

DAVID A. EASTMOND

Affiliation: Professor of Cell Biology and Toxicologist, University of California, Riverside, California

Expertise: Research on the mechanisms of genotoxicity and carcinogenesis of environmental agents and its application in assessing the risk of chemicals

Education: PhD in Environmental Health Sciences, University of California, Berkeley, California
MS in Entomology, Brigham Young University, Provo, Utah
BS in Zoology, Utah, Brigham Young University, Provo, Utah

Experience Summary: Dr. David Eastmond is a professor and toxicologist in the Department of Molecular, Cell and Systems Biology at the University of California (UC), Riverside, where he teaches and conducts research in the areas of toxicology and risk assessment. He also served at University California Riverside as Department Chair (2008–2017) and Environmental Toxicology Graduate Program Chair (1999–2004; 2005–2008). His research has a specific focus on environmental and public health toxicology, with an emphasis on understanding the mechanisms involved in genotoxicity and chemical carcinogenesis, and on assessing risks posed to humans from environmental agents. Dr. Eastmond served as the President of the Environmental Mutagen Society (2003–2004), as a Jefferson Science Fellow in the US State Department (2004–2005), as a Council member of the National Council on Radiation Protection and Measurements (2004–2010) and is a Fellow of the Collegium Ramazzini (2011–present). He has served on the editorial boards of the journals *Mutation Research*, *Genetic Toxicology and Environmental Mutagenesis* (1994–present), *Toxicological Sciences* (2007–2015) and *Chemico-Biological Interactions* (1998–2001).

Panel Experience: Dr. Eastmond is currently a member of the EPA Chemical Assessment Advisory Committee (2013–2019); the Organisation for Economic Co-operation and Development (OECD) Genotoxicity Test Guidelines Working Group (2010–present); the California EPA Carcinogen Identification Committee (1999–present); and the World Health Organization (WHO) Committee to Develop Guidance on Evaluating the Genotoxicity of Compounds in Food for Human Health Risk Assessment (2017–present). He previously served on the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) working group as an invited expert (2015–2016), as Food and Agriculture Organization (FAO)/WHO Meeting Chair (2017), and as Chair of the WHO group (2018). He co-chaired the Risk of Aneugens working group for the International Working Group on Genotoxicity Testing (2016–2019) and served as a member of the Aliso Canyon Gas Leak Independent Expert Scientific Advisory Panel for California EPA (2016). He also served on the National Toxicology Program Board of Scientific Counselors as a member (2009–2012) and as Chair (2011–2012). He co-chaired the Expert Panel on Genotoxicity Testing of Pharmaceuticals for the U.S. Food and Drug Administration (2010). He also chaired the WHO International Programme on Chemical Safety (IPCS) for the harmonization of methods for the Prediction and Quantification of Human Carcinogenic/Mutagenic Hazard Committee (2007–2008) and served on working groups for the International Agency for Research on Cancer (2004, 2007, and 2008).

Edward J. Perkins

Affiliation: Senior Research Scientist, Environmental Networks and Genetic Toxicology, U.S. Army Engineer Research and Development Center (ERDC), Environmental Laboratory, Vicksburg, Mississippi

Expertise: Computational biology, environmental hazard assessment, risk assessment, toxicogenomics

Education: PhD in Genetics and Cell Biology, Washington State University, Pullman, Washington
BS in Genetics, University of Illinois at Urbana-Champaign, Illinois

Experience Summary: Dr. Edward Perkins is a Senior Research Scientist in Environmental Networks and Genetic Toxicology in the U.S. Army Engineer Research and Development Center (ERDC), Environmental Laboratory, Vicksburg, Mississippi. He joined the, ERDC Environmental Laboratory in 1996 where he established a genetics research lab. Prior to joining ERDC, Dr. Perkins worked in development of transgenic plants for phytoremediation and molecular measures of soil quality. His research focuses on development and application of new tools and approaches for chemical hazard assessment and understanding complexity and function in biological systems, e.g., use of toxicogenomics, molecular networks and mechanistic modeling to assess the reproductive toxicity, hepatotoxicity, and neurotoxicity of chemicals in a wide range of species (rat, quail, earthworms, fish, and invertebrates), the use of gene expression to monitor adverse environmental impacts, the use of environmental DNA to monitor invasive species, and the effect of military activities on genetic viability of threatened and endangered species on Department of Defense (DoD) lands.

Panel Experience: Dr. Edward Perkins serves as the DoD representative to the U.S. EPA NexGen Risk Assessment program (2013); the Organization for Economic Cooperation and Development (OECD) expert working group on molecular screening for chemical hazards (2015); and President of the Mid-South Computational Biology Society (2012-2013). Dr. Perkins has served as ad hoc expert on both the FIFRA SAP (2013–2017) and TSCA SACC (2019).

ISAAC N. PESSAH

Affiliation: Professor, University of California, Davis, California

Expertise: Neurosciences, Toxicology, Neurotoxicology, Cell Physiology

Education: PhD in Biology, University of Maryland, College Park, Maryland
MS in Toxicology, University of Maryland, Catonsville, Maryland
BS in Toxicology, Cornell University, Ithaca, New York

Experience Summary: Dr. Isaac Pessah is Professor of Toxicology with over 30 years of teaching and research experience as a faculty member at University of California Davis. His research has addressed questions in the broad field of molecular and cellular neuropharmacology and neurotoxicology. Members of his laboratory perform research to uncover the molecular and cellular mechanisms by which neuromodulators, neurotoxicants, and natural products influence calcium signaling pathways in excitable cells (muscle and neurons) and how such changes influence normal development and function. He has trained 20 PhD students, 21 postdoctoral fellows and more than 50 undergraduates who have gained essential hands-on experience in the scientific approach, including how to formulate and test a hypothesis, experience with standard and advance techniques and instrumentation, quantitative thinking skills, data analyses and key responsible of conduct research (RCR) issues. He has authored/coauthored more than 250 peer reviewed scientific papers, reviews and book chapters. He has served as Associate Dean of Research and Graduate Education, School of Veterinary Medicine, UC-Davis since 2013. He was elected as a Fellowship of the American Association for the Advancement of Science (AAAS) Fellow in 2018.

Panel Experience: Dr. Pessah's experience on federal panels includes: U.S. EPA, Federal Insecticide, Fungicide & Rodenticide Act (FIFRA): Served as an ad hoc member of the scientific review panels that reviewed pyrethroids (2015–2016), and chlorpyrifos (2016–2017); Chemical Assessment Advisory Committee (CAAC): Appointed and serves as expert reviewer for the Chemical Assessment Advisory Committee (2015–present); NIH, Interagency Autism Coordinating Committee: Served on the Strategic Plan Working Group (2008); Neurotoxicology and Alcohol (NAL) Study Section: Served as a standing panel member (2012–2016); California Office of Environmental Health Hazard Assessment: Appointed and serves on the Developmental and Reproductive Toxicity Identification Committee (2012–present); Leibniz Research Institute of Environmental Medicine, served on IUF Scientific Advisory Board (2013–2019).

Michael R. Twiss

Affiliation: Professor, Department of Biology, Clarkson University, Potsdam, New York

Expertise: Limnology; Great Lakes-St. Lawrence River System; Aquatic Biogeochemistry

Education: PhD in Limnology, Université du Québec, Quebec, Canada
MSc in Botany and Env. Studies, University of Toronto, Toronto, Ontario
BSc in Biology and Env. Resource Science (Honors), Trent University, Peterborough, Ontario

Experience Summary: Dr. Twiss is a Great Lakes limnologist with over two decades of experience conducting aquatic science on the Great Lakes and teaching at universities (Ryerson University, Toronto, ON,1998–2002; Clarkson University, Potsdam, New York,2002–present). Dr. Twiss is an elected member of the Board of Directors of International Association for Great Lakes Research and served as its president (2018–2019). Dr. Twiss is a professor of biology and his current research focuses on mobilization of mercury from riparian wetlands along the St. Lawrence River, sustainable approaches to aquatic invasive plant management, and the application of remote water quality sensing in the Great Lakes.

Panel Experience: Dr. Twiss has served as a science advisor to the U.S. EPA Great Lakes Advisory Board (Science & Information Subcommittee (2016–2019) and as an appointed member to the Research Coordination Committee, Great Lakes Science Advisory Board, the International Joint Commission (2015–present). Scientific review panel experience includes: appointed member (2012) of the U.S. EPA Food Quality Protection Act Science Review Board supporting the Science Advisory Panel of the Federal Insecticide, Fungicide, Rodenticide Act; National Science Foundation: Division of Chemical, Bioengineering, Environmental, and Transport Systems (2011, 2012); National Science and Engineering Research Council of Canada Scholarships and Fellowships (Earth Sciences) Selection Subcommittee (2010, 2011); National Science Foundation: Directorate of Environmental Biology (2008, 2009, 2010); Oak Ridge Associated Universities/Oak Ridge Institute for Science and Education, U.S. Department of Energy, External Review Panel Member (2010); Member of Major Resources Support (National Science and Engineering Research Council of Canada) ad hoc Grant Selection Subcommittee for applications related to the Earth Sciences field (2009); Great Lakes Research Consortium: Seed Grants Selection Committee (2005, 2009); and Natural Sciences and Engineering Research Council of Canada, Ship Time Allocations Committee (2002–2005).

CHARLES V. VORHEES

Affiliation: Professor of Pediatrics and Environmental Health, University of Cincinnati College of Medicine and Division of Neurology, Cincinnati Children's Research Foundation, Cincinnati, Ohio

Expertise: Research the effects and mechanisms of neurotoxic chemicals with emphasis on developmental neurotoxicity for environmental agents and drugs; genetically engineered models of pediatric neurological disorders such as attention deficit/hyperactivity disorder (ADHD)

Education: PhD and MA in Neurobiology, Vanderbilt University, Nashville, Tennessee
BA in Psychology/Biology, University of Cincinnati, Cincinnati, Ohio

Experience Summary: Dr. Charles Vorhees is Professor of Neuroscience in the Department of Pediatric Neurology at the University of Cincinnati and Cincinnati Children's Hospital Medical Center with >35 years of research experience in neurotoxicology with focus on developmental neurotoxicology. He was Editor-in-Chief of *Neurotoxicology & Teratology* for nine years and section editor for 15 years and is on the faculty of graduate programs in Neuroscience and Molecular & Developmental Biology and was Program Director of the latter for six years and Director of Graduate Studies and Admissions for the former for four years. He is on the Executive Committees of both programs and on the Admissions Committee of the Neuroscience Program and has been a grant reviewer for the Nation Institutes of Health (NIH), Environmental Protection Agency (EPA), National Science Foundation (NSF), and granting agencies in New Zealand, United Kingdom, Israel, Ireland, Rhode Island, and several others. Dr. Vorhees served on NAS NRC, EPA, and FDA advisory panels. He has been an NIH grant recipient for >35 years, including a T32 training grant from NIEHS that trains teratologists and neurotoxicologists. He has published >330 research articles and chapters. He is Co-Director of the Animal Behavior Core at Cincinnati Children's and a member of the Editorial Boards of *NeuroToxicology and Brain, Behavior & Immunity*, has mentored 33 doctoral students and postdoctoral fellows and lectures in a graduate course in Teratology, Fundamental of Neuroscience, Safety Pharmacology.

Panel Experience: Dr. Vorhees' experience on federal panels includes: U.S. EPA, SAB, Chemical Assessment Advisory Committee, Toxicological Review Benzo[a]pyrene, (IRIS), (2015); Duke Univ., NIH/EPA Children's Environmental Health Center., 2014–2018; EPA: FIFRA, Scientific Advisory Panel (SAP), Office of Pesticide Programs, Chlorpyrifos Health Effects (2012);FDA, Scientific Advisory Panel, Food Advisory Committee (2011), Washington, D.C.; National Institute on Drug Abuse (NIDA), Acquired Immune Deficiency Syndrome (AIDS) Committee (1998), Rockville, Maryland; Regular member, Neurophysiology & Neuroanatomy Committee (1994––1998), Rockville, Maryland; NIDA-3 Committee, (1994), Bethesda, Maryland; NIDA-1 & NIDA-3 (1994), Bethesda, Maryland; National Institute of Drug Abuse (NIDA)-3 Committee (1993), Washington, DC.; NIDA-1 Committee, Washington, DC (1992); NIDA-1 Committee, Palm Beach, Florida (1991); Wellcome Trust, reviewer (1991); NICHD, HED AHR-S2 Committee, Bethesda (1990); NICHD, Higher Education

Committee and Site Visit, University of Wisconsin (1989); U.S. Congress, Office of Technology Assessment, reviewer Report on Neurotoxicity, (1989); National Institute of Child Health and Human Development (NICHD), Human Embryology & Development Committee, Rockville, Maryland (1989); NIDA, Committee D, Rockville, Maryland, (1989); Veterans Affairs grant reviewer (1986); March of Dimes reviewer (1980, 1982, 1983, 1985, 1986, 1987, 1989); NSF, reviewer (1981, 1982, & 1985); and NICHD, Reproductive Biology Committee, Bethesda (1987); National Institute of Drug Abuse (NIDA) Committee D (1987); NICHD, Site Visit, Boston University (1986); National Institute of Child Health Development (NICHD), Site Visit, University of Rochester (1984), Rochester, New York.