



## Speaker Biosketches



### Human Health Hazard Indicators Workshop<sup>1</sup> Sacramento, California, March 15-16, 2010

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**George Alexeeff, Ph.D.** is Deputy Director for Scientific Affairs, Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency. He is also an adjunct Professor in the Department of Environmental Toxicology at the University of California at Davis. He earned his Ph.D. in Pharmacology and Toxicology from the University of California at Davis and has been certified as a Diplomat of the American Board of Toxicology, Inc. (DABT) since 1986. He has reviewed over 140 documents evaluating human epidemiological or animal toxicological evidence for OEHHA or

other agencies such as U.S. EPA. Dr. Alexeeff has recently served on the following National Academy of Sciences Committees: Review of the Federal Strategy to Address Environmental, Health, and Safety Research Needs for Engineered Nanoscale Materials (2008); Evaluating Efficiency of Research and Development Programs at the U.S. Environmental Protection Agency (2007); and Review the Office of Management and Budget Risk Assessment Bulletin (2006). Dr. Alexeeff's professional activities include: President of the Northern California Chapter of the Society of Toxicology (2006-2007); President of the Genetic and Environmental Toxicology Association of Northern California (1995); member of the Society of Toxicology; charter member of the Society for Risk Analysis.



**Kevin M. Crofton, Ph.D.**, is a toxicologist with the Neurotoxicology Division, National Health and Environmental Effects Research Laboratory, U.S. Environmental Protection Agency (U.S. EPA) Research Triangle Park, North Carolina. His primary research interest is the effects of environmental mixtures of thyrotoxic chemicals on the ontogeny of the structure and function of the developing nervous system. Dr. Crofton received his Ph.D. in Toxicology from the University of North Carolina, Chapel Hill. He has been a toxicologist at U.S. EPA since 1986. In addition, he also serves as Adjunct Assistant Professor in the Department of Toxicology at North Carolina State University, and Adjunct Assistant Professor in the Curriculum in Toxicology at the University of North Carolina. Dr. Crofton's professional activities include membership in numerous scientific societies and participation on many professional review boards. Dr. Crofton is an active member of SOT (since 1989) and NC-SOT (since 1993). He is a member of the SOT Neurotoxicology Specialty Section where he has served as Secretary/Treasurer, Councillor, Vice-President and President. He is a founding member of the International

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Neurotoxicology Association where he currently serves as American Treasurer and Website Editor. Dr. Crofton is currently on the editorial boards of Toxicological Sciences and NeuroToxicology; and serves as an ad hoc reviewer many other scientific journals related to toxicology, pharmacology and neuroscience. He currently serves on the WHO/IPCS Programme on the Harmonization of Approaches to the Assessment of Risk from Exposure to Chemicals, Aggregate/Cumulative Risk Assessment Project, and the ILSI Health and Environmental Sciences Institute, Risk Assessment Methodologies Technical Committee Project on Chemical Mixtures Assessment. He has presented invited lectures for a variety of government agencies in Europe, Canada, and the U.S, as well as for professional societies and universities. In addition, he has authored or co-authored nine book chapters, many internal Agency documents, and over 100 peer reviewed publications on neurotoxicology, mixtures, endocrine disrupters and risk assessment.



**Joan Denton, PhD**, has been Director of the Office of Environmental Health Hazard Assessment (OEHHA) since November 1997. Dr. Denton earned a bachelor's degree in zoology from the University of San Francisco in 1968 and a master's degree in biology from the University of Nevada, Las Vegas in 1973. She earned a PhD in biology from the University of California, Santa Barbara in 1979. Dr. Denton was a senior air pollution specialist for the California Air Resources Board from 1987-1997. At the Air Resources Board, she worked to plan and implement the various programs of the toxic air

contaminant identification program, managed the technical staff who develop reports on exposure to toxic air contaminants and was a research specialist for the executive office, stationary source division and the research division. From 1979 to 1982, Dr. Denton was a research associate for the Indiana University School of Medicine Laboratory for Experimental Oncology. Dr. Denton has received numerous awards and honors for her work, including: the Dill Scholarship Award in Biology; Outstanding Supervisory Performance Award, Air Resources Board (received twice); and Cal/EPA Certificates of Appreciation and Recognition. The director of OEHHA is responsible for the performance of the scientific risk assessments for the regulation of chemicals in the environment, and for providing information about the health and environmental risks of chemicals to government agencies and the public as well as the implementation of the Safe Drinking Water and Toxic Enforcement Act of 1986 (also known as Proposition 65).

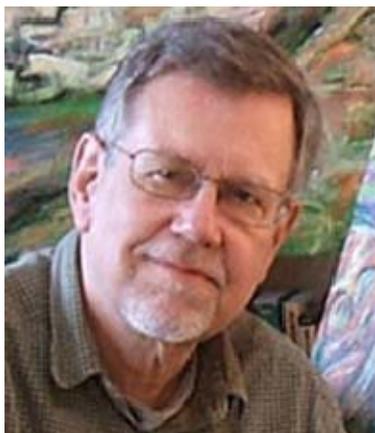
**Paul Foster, Ph.D.**, is the Chief of the Toxicology Branch at the National Institute of Environmental Health Sciences (NIEHS) in Research Triangle Park, North Carolina. His recent research is focused on investigating the mechanisms of environmental chemicals and drug effects on reproductive development. Prior to joining NIEHS in 2002, he was the director of the research program in endocrine, reproductive and developmental toxicology at the CIIT Centers for Health Research. He joined CIIT in December 1995 after a 13-year career at Zeneca's (formerly Imperial Chemical Industries) Central Toxicology Laboratory in Cheshire, England, where he was head of Reproductive and Developmental Toxicology.



Dr. Foster's research interests include the understanding the potential human health effects of environmental endocrine disruptors (particularly antiandrogens); mechanisms of testicular toxicity; the study of early testicular Leydig cell dysfunction induced by chemicals as a prelude to hyperplasia and tumors; and the toxicokinetic and dynamic parameters affecting the induction of reproductive and developmental toxicity. He also has a broad interest in risk assessment issues in these areas and currently serves as the NTP's senior discipline expert in Reproductive and Developmental Toxicology. He has served on numerous national and international advisory committees (EPA, WHO, IPCS, ECETOC, OECD, INSERM, MRC, NRC/NAS, SETAC) dealing with reproductive toxicology and endocrine disruption. He also holds an adjunct appointment at North Carolina State University. Foster is a member of a number of learned Societies dealing with toxicology and reproduction and is a former Chair and member of the Continuing Education Committee (1996-1999), Science Program Committee (2009 – present) and a Past President of the Reproductive and Developmental Toxicology specialty section of the Society of Toxicology (1997-2001). He has served on the editorial boards of *Reproductive Toxicology*, *Birth Defects Research: Developmental and Reproductive Toxicology* and as an Associate Editor of *Toxicological Sciences*. Foster is the author or co-author of over 100 peer-reviewed publications and book chapters and numerous regulatory study reports.

**John R. Froines, Ph.D.**, is Professor and Director, UCLA Center for Occupational and Environmental Health. As the director of the UCLA Center for Occupational and Environmental Health, Dr. Froines leads a multidisciplinary center comprised of the UCLA schools of Public Health, Medicine, Nursing, Engineering and Urban Planning. Dr. Froines' air related research includes the health effects of particulate matter in the ambient environment, lung cancer and non-cancer health effects attributable to air pollution, and the biochemical mechanism of the carcinogenicity of toxic air contaminants, just to name a few. He also directs the Southern California Particle Center and Supersite, a major research center devoted to studying the effects of particulate matter on human health. As the chairman of the California's Scientific Review Panel, he is charged with reviewing data on proposed toxic air contaminants to ensure the appropriate applications of science and risk assessment. Dr. Froines received his B.S. in Chemistry from the University of California at Berkeley in 1963. He received his M.S. (in 1964) and Ph.D. (in 1966) in Physical-Organic Chemistry from Yale University. Dr. Froines was a NIH postdoctoral fellow with Nobel Laureate, Sir George Porter at the Royal Institution of Great Britain. From 1974 to 1977, he was the Director of the Occupational and Radiological Health Division of the Vermont Department of Health and the Director of Occupational Lung Disease at the Vermont Lung Center. Dr. Froines was the Director of Toxic Substances Standards at Occupational Safety and Health Administration from 1977 to 1979. From 1979 to 1981, he was the Deputy Director of the National Institute of Occupational Safety and Health. In 1981, Dr. Froines was recruited to the UCLA School of Public Health and from 1991 to 1998 he was the Chair of the Department of Environmental Health Sciences. As the chairman of the California's Scientific Review Panel, he is charged with reviewing data on proposed toxic air contaminants to ensure the appropriate applications of science and risk assessment.





**Dale Johnson, Pharm.D, Ph.D.**, has more than 30 years experience as a research and development scientist, manager, executive, and entrepreneur in the biopharmaceutical field with large pharmaceutical and biotech companies and several start-ups. He received B.S., Pharm.D, and Ph.D. (Toxicology) degrees from the University of Michigan where he was an AFPE Fellow. He is currently President & CEO of Emiliem, Inc. a privately held biopharmaceutical company developing molecular targeted therapies and molecular diagnostics. Most recently he was Vice President of Drug Assessment and Development at Chiron Corp. Dr. Johnson is also noted for his work in predictive toxicology using various innovative technologies and

computational methodology. He is currently applying this knowledge and expertise in academics, therapeutic R&D, and addressing environmental issues through the State of California Green Chemistry Initiative. Dr. Johnson is an Adjunct Professor in Molecular Toxicology at UC Berkeley where he teaches and mentors students in the undergraduate and graduate science fields. He is a Diplomate of the American Board of Toxicology, co-inventor on several patent applications, and co-editor of the journal *The Chemistry of Metabolic and Toxicological Processes*, *Current Opinion in Drug Discovery & Development*.

**John Knezovich, Ph.D.**, is the director of the Center for Accelerator Mass Spectrometry (CAMS) at the Lawrence Livermore National Laboratory. He is also an adjunct Professor of Environmental Chemistry at UC Davis and the director of the UC Toxic Substances Research & Teaching Program (UC TSR&TP). John received his B.A. in Biology from the University of the Pacific in 1977 and his Ph.D. in Chemical Ecology from UC Davis in 1983. He has broad experience in developing and using experimental approaches for discerning the environmental fate and toxicity of chemicals. As the director of CAMS, he oversees a team of scientists who are applying ion-beam and nuclear physics techniques to a broad range of environmental and biomedical research topics. As director of the UC TSR&TP, he is focused on establishing interdisciplinary research and education programs within the UC system that meet existing and emerging needs within California.



**Thomas Knudsen, Ph.D.**, is Developmental Systems Biologist at the US EPA's National Center for Computational Toxicology (NCCT). His Ph.D. is in Anatomy from Thomas Jefferson University; he received postdoctoral training in Cell Biology at the Children's Hospital Research Foundation in Cincinnati and in Developmental Biology at Emory University. Dr. Knudsen joined NCCT in 2007 following tenure as Professor of Molecular, Cellular and Developmental Biology at the University of Louisville, Birth Defects Center. His research focuses on developmental processes and toxicities leading to birth defects. At NCCT, he is

leading efforts on US EPA's new Virtual Embryo project that aims to integrate experimental data, knowledge of embryology, and computational models to predict chemical effects on embryo development. The project's long-term goal is to support improved assessment of the public and

ecological health implications of environmental stressors during prenatal and developmental exposures. In addition to his research at US EPA, Dr. Knudsen serves on several editorial boards and is currently Editor in Chief of Reproductive Toxicology and Past-President of the Teratology Society.



**Pamela Lein, Ph.D.**, is Associate Professor at the UC Davis School of Veterinary Medicine in the Department of Molecular Biosciences. Dr. Lein received her Ph.D. from the State University of New York at Buffalo and her MSEH from East Tennessee State University. She has previously held faculty appointments at Oregon Health and Science University and at the Johns Hopkins University Bloomberg School of Public Health. Her areas of interest include cell and molecular mechanisms of developmental neurotoxicology, gene-environment interactions that influence susceptibility to neurodevelopmental disorders, and the role of the autonomic nervous system in environmentally-induced asthma and cardiovascular disease.

**Melanie Marty, Ph.D.**, is Chief of the Air Toxicology and Epidemiology Branch, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. Dr. Marty received her Ph.D. from the University of California, Davis in Pharmacology and Toxicology. She oversees risk assessment in the Criteria Air Pollutant Program, Air Toxics Hot Spots Program and the Toxic Air Contaminant Program in Cal/EPA, as well as children's environmental health issues with respect to air pollution. Her branch is responsible for the scientific documents that include quantitative risk assessments for cancer and non-cancer health impacts from air toxics, and recommendations for California's Ambient Air Quality Standards. Her group is also responsible for developing long-term strategies to address key risk assessment issues, including those related to: children's environmental health and early-life exposure to toxic air contaminants; use of mechanistic data in risk assessment of both carcinogens and non carcinogens; valuation and refinement of use of uncertainty factors in non cancer risk assessment; and incorporating new data into setting ambient air quality standards. She has authored/ co-authored numerous articles and publications relating to environmental risk assessment, including evaluation of children's health risks and cancer risk assessment. Dr. Marty has served on a number of U.S. EPA peer review committees and as the Chair of the U.S.EPA's Office of Children's Health Protection Advisory Committee from 2001-2009. Dr. Marty is also an Adjunct Associate Professor at the University of California, Davis, Department of Environmental Toxicology.



**Dinah Misner, Ph.D.**, is the Associate Director for Discovery and Investigative Safety at Roche Palo Alto. Dinah went to graduate school at University of California, San Diego where she majored in biomedical sciences. She then did a post-doctoral research at the Salk Institute. She joined Roche Palo Alto in 2000, where she worked in the central nervous system therapy area, then went on to establish the safety pharmacology group within the non-clinical safety organization. She has since worked in the discovery and investigative safety department, where she was a toxicology project

leader on early projects, and most recently joined the toxicology group, working as a safety representative on both early and later stage development project teams.

**Christopher Portier, Ph.D.**, is currently Associate Director of the National Institute of Environmental Health Sciences (NIEHS), and Director of the NIEHS Office of Risk Assessment Research at the NIEHS. He leads the Environmental Systems Biology (ESB) Research Group within the Laboratory of Molecular Toxicology. As Associate Director, Dr. Portier organizes and coordinates all research activities related to risk assessment both within the NIEHS and outside of the NIEHS with grantees and institutional collaborators. As Head of ESB, Dr. Portier conducts research into quantifying and modeling the interactions of mammalian systems with environmental agents. Previously, Dr. Portier was Director of the Environmental Toxicology Program (ETP) at the NIEHS and Associate Director of the National Toxicology Program (NTP). Dr. Portier received his Ph.D. in biostatistics in 1981 from the University of North Carolina. Dr. Portier is an internationally recognized expert in the design and analysis of toxicology data and in risk assessment methodology. He has published over 150 peer-reviewed scientific manuscripts and over 50 book chapters/reports covering such diverse topics as risk assessment, statistics, cancer biology, immunology, development, genetically modified foods and genomics. He has received numerous awards including the Spiegelman Award from the American Public Health Association and the Outstanding Practitioner of the Year Award from the Society for Risk Analysis. Dr. Portier has aided in the development of risk assessment guidelines for both national (U.S. EPA, U.S. Food and Drug Administration [FDA]) and international (Organization for Economic Co-operation and Development [OECD], International Programme on Chemical Safety [IPCS], International Agency for Research on Cancer [IARC], Australian Government, Korean Government, Japanese Government) authorities and has either directed or contributed significantly to numerous risk assessments, most notably those for dioxins (U.S. EPA, World Health Organization [WHO]/IPCS), aflatoxins (FDA, Food and Agriculture Organization of the United Nations/IPCS) and electromagnetic fields (U.S. Department of Energy/NIEHS). In cooperation with the U.S. State Department, Centers for Disease Control and Prevention [CDC] and U.S. EPA, Dr. Portier has led efforts by the U.S. Government to begin research on the health effects of Agent Orange in Vietnam. He has served as an advisor to the Finnish Academy of Sciences on the Centers of Excellence Research Program, and as a member of a number of WHO/IARC scientific committees. In the last 2 years, Dr. Portier has been invited to speak at over 50 scientific conferences.



**Pamela J. Spencer, Ph.D.**, is the Toxicology Consultant Leader at the Dow Chemical Company Toxicology and Environmental Research and Consulting in Saginaw, Michigan. She does research and publishes on the toxicology of chemicals in products and that may be released into the environment.

**Megan R. Schwarzman, MD, MPH** is a research scientist with the Center for Occupational and Environmental Health (COEH), University of California, Berkeley, School of Public Health, and is Director of Health and Environment for the Berkeley Center for Green Chemistry (BCGC). Her work focuses on endocrine disrupting substances, reproductive environmental health, U.S. and European chemicals policy, and the implications for human health and the environment of the production, use and disposal of chemicals and products. She earned her medical degree from the University of Massachusetts, completed her specialty training in Family Medicine at the University of California, San Francisco, and earned a master's of public health in environmental health at the University of California, Berkeley. She was a co-author of the 2008 report to Cal/EPA, *Green Chemistry: Cornerstone to a Sustainable California*. In addition to environmental health research, Dr. Schwarzman is a clinical instructor at University of California, San Francisco and practices medicine part time at San Francisco General Hospital. Dr. Schwarzman currently serves on Cal/EPA's Green Ribbon Science Panel for implementation of green chemistry legislation.



**Gina M. Soloman, MD, MPH** is a Senior Scientist at the Natural Resources Defense Council (NRDC). She is also an Associate Clinical Professor of Medicine at the University of California at San Francisco (UCSF) where she is the Director of the Occupational and Environmental Medicine Residency Program and the Associate Director of the UCSF Pediatric Environmental Health Specialty Unit. Her work has included over 40 scientific papers, book chapters, and reports on air pollution, pesticides, global warming, and other environmental and occupational threats to health. Dr. Solomon serves on the U.S. EPA Science Advisory Board Drinking Water Committee, the National Toxicology Program Board of Scientific Counselors, and the Scientific Guidance Panel for California's biomonitoring program. Dr. Solomon attended medical school at Yale and did her postgraduate training in internal medicine, public health, and occupational and environmental medicine at Harvard.



**Tracey Woodruff, PhD, MPH** is the Director of the Program for Reproductive Health and the Environment and an Associate Professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences and Pediatrics at the University of California, San Francisco. She has done extensive research and policy development on environmental health issues, with a particular emphasis on early-life development. Her research areas include perinatal health effects from air pollution, developing the first national characterization of air toxics across the US, children's health risks, and environmental health indicators. She has authored numerous scientific publications. She recently departed from the US Environmental Protection Agency (US EPA), where she was a senior scientist and policy advisor in the Office of Policy, Economics, and Innovation. While at US EPA, Dr. Woodruff was the principal author of two reports on children's environmental health indicators. She also has worked on critical

science policy issues, including participation in risk assessment review and development, and general policy development. Dr. Woodruff is a coauthor of the 2005 US EPA guidance addressing childhood susceptibility to carcinogens for use in risk assessment. She is an Associate Editor of *Environmental Health Perspectives*.

**Lauren Zeise, PhD**, is Chief of the Reproductive and Cancer Hazard Assessment Branch of the California Office of the Environmental Health Hazard Assessment. She oversees or is otherwise involved in a variety of California's risk assessment activities, including cancer and reproductive toxicant assessments; development of frameworks and methodologies for assessing cumulative impacts, nanotechnology, green chemistry/safer alternatives, and susceptible populations; the California Environmental Contaminant Biomonitoring Program; and health risk characterizations for environmental media, food, fuels and consumer products. Dr. Zeise's research focuses on human interindividual variability and risk. She was the 2008 recipient of the Society of Risk Analysis Outstanding Practitioners Award and is a National Associate of the National Academy of Science's National Research Council. She has served on various advisory boards and committees of the US EPA, Office of Technology Assessment, World Health Organization, and National Institute of Environmental Health Sciences. She has also served on a number of NRC and IOM committees and boards, including the committee that produced *Toxicity Testing in the 21st Century: A Vision and Strategy*, *Science and Decisions: Advancing Risk Assessment*, and *Understanding Risk: Informing Decisions in a Democratic Society*. Dr. Zeise received her Ph.D. from Harvard University.



**Dr. Luoping Zhang** is an Associate Adjunct Professor of Toxicology in the Division of Environmental Health Sciences (EHS), School of Public Health at the University of California, Berkeley. She is also an Associate Director of the Genes and Environment Laboratory (GEL), as well as co-leader and co-investigator of the UC Berkeley Superfund Basic Research Program (SBRP) and Center for Exposure Biology (CEB).

Dr. Zhang received her Ph.D. in biochemistry and toxicology from Simon Fraser University in 1993. Her research has focused on investigating biological consequences and molecular mechanisms of leukemia and lymphoma associated with exposures to toxic chemicals (e.g. benzene, formaldehyde, trichloroethylene etc). Dr. Zhang has developed and applied a novel OctoChrome FISH (fluorescence in situ hybridization) device to evaluate chromosomal alterations in the blood stem and progenitor cells of occupationally exposed Chinese workers. Most recently, Dr. Zhang's group employs many high-throughput novel technologies such as single-cell genetic analysis (SCGA) and array-based omic technologies, including toxicogenomics, proteomics and epigenetics in molecular epidemiology studies, miRNA (micro RNA) and RNAi (RNA interference) in human cell cultures. A Systems Biology approach is currently applied in her population studies.