BIOSKETCHES FOR AD HOC PANEL MEMBERS
DECEMBER 1-3, 2009 FIFRA SAP,
"FIELD VOLATILIZATION OF CONVENTIONAL PESTICIDES"

Brian T. Buckley, Ph.D.

Dr. Brian Buckley is an analytical chemist and member of the graduate faculty in Environmental Sciences, Toxicology and Public Health at Rutgers University and University of Medicine and Dentistry, New Jersey. He is also on multiple review panels for NIH as requested. His research focus is on analytical methods development and modification to measure environmental contaminants and their metabolites. Dr. Buckley has been involved in many human exposure studies including NHEXAS, CLEARS and the Childhood Autism Study. His laboratory research has focused on innovative analytical techniques such as Microwave Assisted Solvent Extraction (MASE), solid phase microextraction (SPME) and metal speciation to measure contaminants in environmental media. His research projects include using synthetic biofluid extractions for estimating bioavailability, measurement of unregulated organic contaminants such as PFOA and pharmaceuticals in drinking water, quantifying arsenic species in human urine and extraction of BPA from tissue.

Kenneth J. Davis, Ph.D.

Dr. Kenneth Davis is Professor of Meteorology at The Pennsylvania State University. He holds an A.B. degree in physics from Princeton University, and a Ph.D. in Astrophysical, Planetary and Atmospheric Sciences from the University of Colorado. His professional appointments include postdoctoral fellow at the National Center for Atmospheric Research and Associate Professor in the Department of Soil, Water and Climate at the University of Minnesota. He has been a visiting scientist at the Institute for Atmospheric Physics of the German Aerospace Research Establishment, and at the Laboratory of the Sciences of Climate and the Environment within the French Commissariat for Atomic Energy. His research interests include boundary layer meteorology, the terrestrial carbon cycle, and climate change science and ethics. He has expertise in measurements of atmospheric concentrations and fluxes of carbon dioxide and the application of these data to improve predictions of future climate. He served as a lead author of the 2007 U.S. State of the Carbon Cycle Report, and is a past chair of the Committee on Boundary Layers and Turbulence for the American Meteorological Society. He has authored or coauthored more than 75 peer-reviewed articles, and supervised a number of successful postdoctoral fellows and Ph.D. students. He currently serves the federal government as co-chair of the Science Steering Group for the North American Carbon Program and as Director of the Northeastern Regional Center of the Department of Energy's National Institute for Climatic Change Research.

Roberta Grant, Ph.D.

Dr. Roberta Grant is a Senior Toxicologist at the Toxicology Division of the Texas Commission on Environmental Quality. She serves as project coordinator for preparation of Development Support Documents for specific chemicals which outline the procedures used to develop acute and chronic inhalation reference values and unit risk factors. Roberta has a Ph.D. in toxicology from the College of Pharmacy, University of Texas at Austin (UT Austin) and completed a postdoctoral fellowship in the Integrated Toxicology Program at Duke University before joining the Agency in January 1997. She has performed health effects reviews of air permit applications, remediation risk assessment projects, and ambient monitoring projects as well as preparing toxicological reports and participating in special projects. She serves as section expert on methods to determine potential health risks and hazards of air emissions from facilities with hazardous waste combustion units by conducting site-specific multipathway direct/indirect risk assessments. In October 2003, Roberta participated with other staff toxicologists in writing *Guidelines to Develop Effects Screening Levels, Reference Values, and Unit Risk Factors* (RG-422). She has served on USEPA's National Advisory Committee for Developing Acute Exposure Guideline Levels (AEGLs),.

Paul Y. Hamey, MSc.

Mr. Paul Hamey is a Principal Scientist at the UK Government's Health & Safety Executive's Chemicals Regulation Directorate (CRD). The CRD is responsible for the regulation of agricultural pesticides, biocides, industrial chemicals and detergents in the UK. Mr. Hamey leads a team of scientists responsible for human pesticide exposure assessments, and risk assessments. He is also responsible for providing high level advice on exposure matters within the UK. He has a BSc. in Biology from the University of York (1979) and a MSc. in Bioaeronautics from the Cranfield Institute of Technology (1983). Mr. Hamey has over twenty years experience of assessing occupational exposures to pesticides and conducting regulatory risk assessments which includes both work at the UK level and chairing a group of European experts developing harmonized approaches within Europe. He is a member of the secretariat to the UK Government's independent Advisory Committee on Pesticides (ACP), and attends meetings of the ACP's Medical and Toxicology Panel, and the independent Pesticide Residues Committee.

Martha E. Harnly, MPH

Ms. Martha Harnly works as a research scientist on environmental epidemiology at the Environmental Health Investigations Branch within the California Department of Public Health in Richmond, CA. She holds a Masters of Public Health in the Environmental Health Sciences from the University of California, Berkeley. Ms. Harnly has worked within public health since 1976. She currently

designs and conducts human environmental chemical exposure assessment studies in a team setting for CDPH. Ms. Harnly is co-investigator responsible for exposure assessment on several grants from the Institute of National Environmental Health Sciences and the US Environmental Protection Agency. Studies she has conducted have included a biological mercury monitoring study among a Native American community living next to a mine, evaluation of contamination on hazardous waste sites, and studies of dioxin contamination in home-produced foods. Most recently, she has conducted research on pesticide environmental fate and air pollution from agricultural burning. She is a member of the Pesticide Risk and Evaluation Committee, an interagency committee established by the California Department of Pesticide Regulation to provide protective, practical solutions to pesticide issues.

Michael S. Majewski, Ph.D.

Dr. Michael Majewski is a research chemist with the US Geological Survey in Sacramento, California. He received his Ph. D. from the University of California in 1990, and continued his research on developing methods for determining post-application volatilization of pesticides in a postdoctoral position with the US Department of Agriculture-Agricultural Research Service, Environmental Chemistry Laboratory in Beltsville, Maryland. Dr. Majewski's current research is focused on investigating the atmospheric transport and fate of airborne contaminants such as pesticides, volatile organic compounds, polynuclear aromatic hydrocarbons, and trace metals. His research interests also include developing sampling and analytical methods for the atmospheric deposition (both wet and dry) of contaminants to determine the contribution this pathway plays in contaminant loading to surface and ground waters, and their effects on non-target ecosystems such as coral reefs. Dr. Majewski is currently investigating the effects of air quality on water quality in a drinking water reservoir in southern California. Dr. Majewski has done extensive work in developing measurement and analytical methods to determine the post-application volatilization rates of pesticides, including fumigants from treated fields. The results from many of his field experiments have been used to model down wind drift concentrations from application areas as well as long-range atmospheric transport and deposition of agricultural pesticides.

Laura L. McConnell, Ph.D.

Dr. Laura McConnell is a Research Chemist at the Beltsville Agricultural Research Center. Dr. McConnell has been involved in basic and applied research concerning the fate and transport of pollutants for 22 years; four years as a doctoral student conducting research into the long-range atmospheric transport of organochlorine pesticides and 17 years with the US Department of Agriculture-Agricultural Research Service. Dr. McConnell has carried out studies to examine spatial and temporal trends in the atmospheric deposition of pesticides to the Chesapeake Bay, the Sierra Nevada Mountains in California,

and South Florida while maintaining an emphasis on environmental transport processes with respect to agricultural pesticides and other organic pollutants. Concurrently, Dr. McConnell has established a research program in the area of volatile organic compound (VOC) emissions from wastewaters, manures, sludges, and from pesticide inert ingredients. Dr. McConnell has authored or co-authored 65 publications including 59 peer-reviewed journal articles. Dr. McConnell was awarded the ARS Herbert L. Rothbart Outstanding Early Career Scientist of the Year Award and the Presidential Early Career Award for Scientists and Engineers in 1998. She was elected to the IUPAC Division of Chemistry and the Environment in 2003, and elected Chair of the Division of Agrochemicals of the American Chemical Society in 2007.

Jacob D. McDonald, Ph.D.

Dr. Jacob McDonald is a Scientist and Director of the Chemistry and Inhalation Exposure Program at Lovelace Respiratory Research Institute (LRRI). His PhD in Environmental Chemistry and Toxicology was received from the University of Nevada, Reno (UNR). At UNR Dr. McDonald studies analysis and fate of air pollutants. Since coming to LRRI, Dr. McDonald's main research emphasis is the implementation of analytical chemistry and aerosol science to address questions of human health relevance. In particular, Dr. McDonald has interests in composition: response relationships related to lung toxicity of complex environmental mixtures. He has experience in the generation of gases/vapors/aerosols for detailed emission characterizations and controlled laboratory studies, primarily to assess the toxicology of materials. He has an interest in developing laboratory exposures that represent "real-world" conditions, and conducting characterizations of these exposures that allow toxicity results to be placed in context of human exposures to either environmental pollutants or drug products. He has been involved in the evaluation of techniques for associating chemical components to biological effects, including the design of laboratory experiments and the evaluation of multivariate and other statistical approaches to elucidate the harmful component of inhaled mixtures. He is currently Principle Investigator on a National Toxicology Program aimed at assessing chemical disposition and metabolism of toxicants after multiple routes of exposure.

Frederick J. Miller, Ph.D., ATS

Dr. Fred Miller is currently an independent consultant in dosimetry and inhalation toxicology. His primary research interests include pulmonary toxicology, dosimetry of gases and particles, extrapolation modeling, and risk assessment. From 1991-2005, Dr. Miller was employed in various capacities at the Chemical Industry Institute of Toxicology, serving most recently as Vice President for Research. During his career as a U.S. Public Health Service Officer assigned to the U.S. EPA, Dr. Miller served in various leadership positions and was noted for bringing together interdisciplinary teams of scientists to solve important public health problems. In

1989, Dr. Miller joined the faculty of Duke University Medical Center, continuing his long-standing interest in extrapolation modeling. He is internationally recognized for his research on the dosimetry of reactive gases and has authored or co-authored more than 160 publications. Dr. Miller received a number of Scientific and Technical Achievement awards from EPA and also the PHS' Outstanding Service Medal. In 2005, he was awarded the Career Achievement Award by the Inhalation Specialty Section of the Society of Toxicology (SOT) in recognition for his contributions to the field of inhalation toxicology. He has served on EPA's Clean Air Science Advisory Committee and on numerous peer review and advisory panels for governmental and private organizations.

William J. Popendorf, Ph.D.

Dr. William Popendorf is a Professor of Industrial Hygiene at Utah State University. He has been on the Board of the American Industrial Hygiene Association and a Director of the American Board of Industrial Hygiene. Dr. Popendorf has taught and conducted research for over thirty years, and published over seventy papers and book chapters (most recently a text book, see below). The topics of his research have progressed from pesticide hazards to farm workers in 1972-1992 to inorganic dusts in agricultural and natural mineral fibers from 1978-1982, organic dusts from grains and livestock in 1982 1995, various respiratory hazards in automotive industry foundries and metal working fluids in 1987-1994, and broader reviews since 1991 culminating in 2006 with his textbook Industrial Hygiene Control of Airborne Chemical Hazards. His broad interest has been to develop or/and apply predictive models, many developed in other fields, that describe how physical mechanisms cause, and can be used to control, the exposures of workers to organic vapors, hazardous particulate aerosols, and dermal-toxic chemicals, with the expectation that such tools will improve the overall practice and knowledge-base of industrial hygiene.

Richard B. Schlesinger, Ph.D.

Dr. Richard Schlesinger is Associate Dean of the Dyson College of Arts and Sciences of Pace University, in New York, NY. He is Professor of Biology and Director, Graduate Program in Environmental Science, at Pace University. Prior to this, he was Professor of Environmental Medicine and Director of the Systemic Toxicology Program at New York University. 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, EPA, 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.

James N. Seiber, Ph.D.

Dr. James Seiber is currently the Chair of the Department of Food Science and Technology at the University of California, Davis (UC Davis). He is also a Professor Emeritus with the Department of Environmental Toxicology at UC Davis. He received his Ph.D. from Utah State University and his M.S. from Arizona State University. Prior to his current position at UC Davis, Dr. Seiber was the Director of the Western Regional Research Center, USDA, ARS in Albany, California as well as being the Acting Director, Southern Regional Research Center, US Department of Agriculture-Agricultural Research Service, New Orleans, LA. He has been the Editor in Chief of the *Journal of Agricultural and Food Chemistry*, American Chemical Society, UC Davis since 1998. He was a Director of the University Center for Environmental Sciences and Engineering, and Sierra Pacific Professor of Environmental Sciences, Department of Environmental and Resource Sciences, University of Nevada, Reno, Nevada. His research interests include: food chemistry, food safety, and health benefits of foods, agricultural and environmental chemistry, chemistry of pesticides, and industrial byproducts. He has conducted risk assessments for chemicals in the environment; trace organic analysis, studied new methods for disposing of chemical, agricultural, and industrial wastes, as well as environmental chemistry associated with biofuels. Dr. Seiber is an Elected Fellow, Agricultural and Food Chemistry Division, American Chemical Society and is currently the Chair, Awards Committee, Agrochemical Division, American Chemical Society. He serves as a member of several committees including the Steering Committee, Western Institute of Food Safety and Security, UC Davis and California Biomass Collaborative, UC Davis and California Energy Commission.

Michael G. Yost, Ph.D.

Dr. Michael Yost is a Professor in the Department of Environmental and Occupational Health Sciences at the University of Washington. Dr. Yost's teaching reflects his general interest in exposure assessment, instrumentation for chemical sampling and in physical agents such as noise, vibration, electromagnetic radiation, heat, etc. He teaches classes on occupational and environmental noise, non-ionizing radiation, electrical safety, and a laboratory

class on chemical sampling methods. His research program focuses mainly on developing novel tools for environmental and occupational exposure assessment. The Optical Remote Sensing Laboratory (ORS lab) is devoted to sampling techniques that use electromagnetic radiation (e.g. ultraviolet, visible, infrared light, or lasers) to identify and measure environmental pollution at locations distant from the instrument. These instruments operate by passing light beams through the air and can measure trace contaminants directly in the beam path. ORS instruments can sample over paths from a few meters to several kilometers long. Dr. Yost's research group has done extensive work developing these tools to scan an area and map contaminant concentrations. He has two ORS infrared instruments used for measuring gases, and a new LIDAR (Light Detection And Ranging) device for measuring aerosols. A second investigation involves studying other novel sampling methods. His research group has developed and tested a heart rate controlled sampling pump that changes flow rate in proportion to a person's breathing rate, to account for increased exposure due to exercise and physical labor. In addition, Dr. Yost is working on optical methods for sampling exhaled breath (biological monitoring) and on an instrument that can measure chemicals on skin and other surfaces.