

**Invitation for Comments on the “Short List” Candidates for the
Scientific and Technological Achievement Awards (STAA) Review Panel
(FY 2006-2009) of the EPA Science Advisory Board (SAB)
May 5, 2006**

The EPA Science Advisory Board (SAB) Staff Office announced in 70 FR no. 199, (pages 60336-60337), October 17, 2005, that it was forming the Scientific and Technological Achievement Awards (STAA) Review Panel for FY 2006-2009. This Panel reviews peer-reviewed publications from EPA scientists and makes recommendations for awards. Background on the details of this advisory activity and panel nomination process appear in the above referenced Federal Register notice and are also available at the SAB website (<http://www.epa.gov/sab/>).

The SAB Staff Office has reviewed the nominations for the Panel, and has identified a list of nominees to a “Short List” of 13 candidates based on the qualifications, expertise needed for this panel and interest of the nominees. Brief biosketches of the candidates on the "Short List" are listed below. We invite comments from the public on these candidates. We welcome information, analysis or documentation that the SAB Staff Office should consider in evaluating the "Short List" candidates.

Any information furnished by the public in response to this SAB website posting will be considered by the SAB Staff Office. Prior to final panel selection, the combined information will be reviewed and evaluated for any possible financial conflict of interest or a possible appearance of a lack of impartiality. The information will also be used to ensure appropriate balance and breadth of expertise needed to address the charge to the Panel. The SAB Staff Office Director makes the final decisions concerning who will serve on the Scientific and Technological Achievement Awards (STAA) Review Panel.

Please provide any comments no later than **May 30, 2006** to the attention of Ms. Vivian Turner, Designated Federal Officer, (turner.vivian@epa.gov).

STAA Review Panel Short List Biosketches

G. Allen Burton

Wright State University

Dr. G. Allen Burton is Professor of Environmental Sciences and Director of the Institute for Environmental Quality at Wright State University. He holds a B.S. in biology and chemistry from Ouachita Baptist University, an M.S. in microbiology from Auburn University, and a Ph.D. in environmental science from the University of Texas at Dallas. His areas of expertise and research interests include: methods to identify significant effects and stressors in contaminated aquatic systems; ecosystem risk assessments evaluating multiple levels of biological organization; and integrating laboratory and in situ toxicity tests with habitat characterizations and physicochemical profiles to determine the role of chemical contaminants among multiple stressors. Dr. Burton was the Brage Golding Distinguished Professor of Research. He has served on numerous national and international scientific committees, review panels and editorial boards and will serve as President of the World Council of the Society of Environmental Toxicology and Chemistry. Currently, his funding is from the U.S. Environmental Protection Agency STAR Program research PCB flux from sediments, and the copper industry to investigate the flux and benthic effects of bioavailable copper from sediments in relation to acid volatile sulfide concentrations.

James Bus

Dow Chemical Company

Dr. James S. Bus is currently Director of External Technology and a member of the Leadership Team in the Toxicology and Environmental Research and Consulting group at the Dow Chemical Company, Midland, Michigan. Prior to joining Dow Chemical in 1989, he held positions of Associate Director of Toxicology and Director of Drug Metabolism at the Upjohn Company (1986-1989), Research Scientist at the Chemical Industry Institute of Toxicology (1977-1986), and Assistant Professor of Toxicology at the University of Cincinnati (1975-1977). He currently is Adjunct Professor of Pharmacology and Toxicology (Michigan State University) and previously Adjunct Associate Professor of Toxicology (University of North Carolina). Dr. Bus received a Ph.D. in Pharmacology (Michigan State University) and a B.S. in Medicinal Chemistry (University of Michigan). He has served on a variety of external professional and science advisory groups including: President of both the Society of Toxicology and the American Board of Toxicology; US Environmental Protection Agency Office of Research and Development Board of Scientific Counselors (BOSC); National Academy of Sciences Committee on Emerging Issues and Data on Environmental Contaminants; National Toxicology Program Board of Scientific Counselors (Bioassay Review Subcommittee); ACGIH Chemical Substances TLV Committee; Director of the International Union of Toxicology; Board of Trustees and Emerging Issues Committee of the International Life Sciences Institute, Health and Environmental Sciences Institute (ILSI-HESI); Board of Directors and Co-Chair of the Science Program Committee of the CIIT

Centers for Health Research; and Co-Chair of the American Chemistry Council Long-Range Research Initiative. His research interests have focused on mechanisms of chemical toxicity for pesticides and industrial chemicals, and applications of mechanistic information to improving human health risk evaluations. Dr. Bus' research is funded either directly by The Dow Chemical Company or through chemical industry consortia, and he receives no additional external research funding.

Stanley B. Grant

University of California , Irvine

Dr. Stanley Grant is Professor of Environmental Engineering, and Chair of the Department of Chemical Engineering & Materials Science at the University of California, Irvine (UCI). Dr. Grant received a B.S. (with distinction) in Geology from Stanford University (1985) and a M.S. and Ph.D. in Environmental Engineering Science from the California Institute of Technology (1990 and 1992, respectively). Dr. Grant studies the sources, fate, and transport of pathogens and indicator organisms in drinking water, urban runoff, and the coastal ocean. He is a member of the US Environmental Protection Agency's Science Advisory Board (Drinking Water Panel), and is the lead on several multidisciplinary research projects, including one on the influence of tidal wetlands on coastal pollution (joint with researchers from UCI, Scripps Institution of Oceanography, and UCLA, funded by the University of California Marine Council); another on the association of pathogens and particles in storm runoff (joint with researchers from UCI and UCSB, funded by the US Geological Survey and the National Water Research Institute); and a third on the contribution of marinas to fecal indicator bacteria impairment in tidal embayments (in support of the Newport Bay Fecal Coliform TMDL, funded by the California State Water Quality Control Board). Dr. Grant is recipient of the prestigious Career Award from the National Science Foundation (1985-2000), and a number of local awards including Conservator of the Year (2002) from the Bolsa Chica Wetlands Conservancy, and the Distinguished Assistant Professor Award for Teaching from the UCI Academic Senate (1999).

Dale Hattis

Clark University

Dr. Dale Hattis is Research Professor with the Center for Technology Environment and Development (CENTED) of the George Perkins Marsh Institute at Clark University. He holds a Ph.D. in Genetics from Stanford University and a B.A. in biochemistry from the University of California at Berkeley. For the past thirty 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 the development of methodology to incorporate interindividual variability data and quantitative mechanistic information into risk assessments for both cancer and non-cancer endpoints. An important focus in recent years has been on age-related differences in pharmacokinetic processes and susceptibility for carcinogenesis. Specific quantitative risk assessment studies have included hearing disability in relation to noise exposure, renal effects of cadmium, reproductive effects of ethoxyethanol, neurological effects of methyl mercury and acrylamide, chronic lung function impairment from coal dust, four pharmacokinetic-based risk assessments for carcinogens (for perchloroethylene ethylene oxide, butadiene and diesel particulates), an analysis of uncertainties in pharmacokinetic

modeling for perchloroethylene and an analysis of differences among species in processes related to carcinogenesis. He has recently been reappointed as a member of the Environmental Health Committee of the EPA Science Advisory Board and for several years he has served as a member of the Food Quality Protection Act Science Review Board. In the recent past he has served as a member of the National Research Council Committee on Estimating the Health-Risk-Reduction Benefits of Proposed Air Pollution Regulations. Recent major sources of research support include the Department of Energy and the U.S. Environmental Protection Agency. He has been a councilor and is a Fellow of the Society for Risk Analysis and serves on the editorial board of its journal Risk Analysis.

Dr. Byung R. Kim

Ford Motor Company

Dr. Byung R. Kim is Technical Leader in the Physical and Environmental Sciences Department of Ford Research and Advanced Engineering, Dearborn, MI and is a professional engineer. He received the B.S. degree in Civil Engineering from Seoul National University in Korea in 1971 and M.S. and Ph.D. degrees in Environmental Engineering from the University of Illinois, Urbana, IL in 1974 and 1977. His current research interest is in understanding various manufacturing emission issues (physical/chemical/biological waste treatment processes and the overall environmental impact of manufacturing processes). He also has worked on the adsorption of organics on activated carbon and water quality modeling. He has served on EPA SAB Environmental Engineering Committee (1999-2005) and was Editor-in-Chief of the Journal of Environmental Engineering, American Society of Civil Engineers (ASCE) (1996-1998). He served on the advisory board for the National Institute of Environmental Health Superfund Basic Research Program at the University of Cincinnati (1991-1996). He is an ASCE Fellow and received a Richard R. Torrens Award (1998) for editorial leadership from ASCE, two Willem Rudolfs Medals (1990 and 1998) from Water Environment Federation on his publications in industrial wastes, and a Distinguished Alumnus Award (2005) from the Department of Civil and Environmental Engineering, University of Illinois, Urbana. His research activities are entirely funded by Ford Motor Company, and he has no external sources of funding.

Michael T. Kleinman

University of California, Irvine

Dr. Michael T. Kleinman has been studying the health effects of exposures to environmental contaminants found in ambient air for more than 30 years. He holds a MS in Chemistry from the Polytechnic Institute of Brooklyn and a Ph.D. in Environmental Health Sciences from New York University. He is a Professor and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine at University of California, Irvine. Prior to joining the faculty at U.C.I. in 1982, he directed the Aerosol Exposure and Analytical Laboratory at Rancho Los Amigos Hospital in Downey, CA. He has published more than 85 articles in peer-reviewed journals dealing with the uptake and dosimetry of inhaled pollutants in humans and laboratory animals, and effects on cardiopulmonary and immunological systems after controlled exposures to ozone and other photochemical oxidants, carbon monoxide and ambient or laboratory-generated aerosols. He recently chaired a National Academy committee to examine issues in protecting deployed US

Forces from the effects of chemical and biological weapons. Dr. Kleinman's current studies focus on cardiopulmonary effects of concentrated ambient ultrafine, fine and coarse particles. Specifically, Dr. Kleinman is currently the co-principal investigator of an NIH-funded investigation of the effects of environmental PM on children with asthma. Dr. Kleinman's also uses animal models (mice that are genetically predisposed to cardiopulmonary disease, aged rats as a model of aging human populations and a mouse model of allergic airways disease) to examine biological mechanisms of effects of inhaled air contaminants on the lungs and heart of normal and diseased individuals. Recent studies of the offspring of animals that were exposed to inhaled metal-containing particles demonstrate that in utero exposures may have important effects on the developing organism. Dr. Kleinman is a consultant to the U.S. EPA Science Advisory Board and currently serves as the Chair of the California Air Quality Advisory Committee, which reviews California's air quality criteria documents. His sources of recent grant or contract support are the NIH, EPA, CARB and HUD.

Joseph R. Landolph

University of Southern California in Los Angeles

Dr. Joseph R. Landolph is currently Associate Professor of Molecular Microbiology and Immunology and Pathology in the Keck School of Medicine, and Associate Professor of Molecular Pharmacology and Toxicology, in the School of Pharmacy, with tenure, and a Member of the USC/Norris Comprehensive Cancer Center, at the University of Southern California (USC) in Los Angeles, California. Dr. Landolph received a B. S. degree in Chemistry from Drexel University in 1971. He then received a Ph. D. in Chemistry from the University of California at Berkeley in 1976 under the guidance of the late Professor Melvin Calvin. For his Ph. D., Dr. Landolph studied the metabolism of the chemical carcinogen, benzo(a)pyrene, and its ability to induce cytotoxicity in cultured mouse liver epithelial cells and cytotoxicity and morphological transformation in Balb/c 3T3 mouse fibroblasts. Dr. Landolph performed postdoctoral study in chemical carcinogenesis and chemically induced morphological and neoplastic cell transformation and mutagenesis at the USC/Norris Comprehensive Cancer Center at the University of Southern California (USC) under the late Professor Charles Heidelberger, from 1977-1980. Dr. Landolph was appointed Assistant Professor of Pathology in 1980, Assistant Professor of Microbiology and Pathology in 1982, and was promoted to Associate Professor of Microbiology, Pathology, and Toxicology at USC in 1987. He is currently Associate Professor of Molecular Microbiology and Immunology, Pathology, and Molecular Pharmacology and Toxicology at the Keck School of Medicine and School of Pharmacy at USC. Dr. Landolph has served as a grant reviewer for the U. S. EPA. Health Effects Panel, for special RFAs for the NIEHS, and as an ad hoc member for the Chemical Pathology Study Section and the Al-Tox-4 Study Section of the NIH. Dr. Landolph has also been a member of the Carcinogen Identification Committee reporting to the Scientific Advisory Committee of the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency from 1994-Present, and a member of the Scientific Review Panel for Toxic Air Contaminants (SRP) of the State of California (2003-Present). He has also served on the Drinking Water Committee (2003-Present) and on the Human Health Research Review Committee (2003) and on the STAA Review Committee (2003-Present) of the Science Advisory Board of the U. S. E. P. A. He also served as a member of the Human Health Research Review Sub-Committee of the Board of Scientific Counselors of the U. S. E. P. A. (2005-2006). He is the recipient of numerous

awards, including the Merck Award in Chemistry and the Superior Cadet Award in ROTC from Drexel University in 1971, the Edmundson Teaching Award in the Dept. of Pathology at USC in 1985, a Traveling Lectureship Award from the U. S. Society of Toxicology in 1990, and a competitive American Cancer Society Postdoctoral Fellowship from 1977-1979. Dr. Landolph's research interests and activities include studies of the genetic toxicology and carcinogenicity of carcinogenic insoluble nickel compounds, carcinogenic chromium compounds, carcinogenic arsenic compounds, and carcinogenic polycyclic aromatic hydrocarbons. His laboratory is focused on studying the ability of these carcinogens to induce morphological and neoplastic transformation of C3H/10T1/2 mouse embryo cells and the cellular and molecular biology of the transformation process. His laboratory is currently studying the ability of carcinogenic nickel compounds to induce activation of expression of oncogenes and inactivation of expression of tumor suppressor genes in cells transformed by insoluble carcinogenic nickel compounds, such as nickel subsulfide, crystalline nickel monosulfide, and green (high temperature) and black (low temperature) nickel oxides. His laboratory is also studying the molecular biology of morphological and neoplastic transformation induced by compounds containing chromium (VI). Dr. Landolph is an expert in chemically induced morphological and neoplastic transformation and chemically induced mutation in murine and human fibroblasts. He is the author of 35 peer-reviewed scientific publications, 21 book chapters/review articles, and has held peer-reviewed research grant support from the U. S. EPA, the U. S. National Cancer Institute, and the U. S. Institute of Environmental Health Sciences.

Igor Linkov

Cambridge Environmental Inc.

Dr. Igor Linkov is a Senior Scientist with Cambridge Environmental Inc. in Cambridge, MA, and Adjunct Professor of Engineering and Public Policy at Carnegie Mellon University in Pittsburgh, PA. Prior to joining Cambridge Environmental, Dr. Linkov was a Senior Risk Assessor and Team Leader at ICF Consulting, Arthur D. Little, Inc. and Menzie-Cura and Associates, Inc., where he conducted ecological and human health risk assessments for Superfund sites. Dr. Linkov has a BS and MSc in Physics and Mathematics (Polytechnic Institute, Russia) and a Ph.D. in Environmental, Occupational and Radiation Health (University of Pittsburgh). He completed his postdoctoral training in Biostatistics and Toxicology and Risk Assessment at Harvard University. Dr. Linkov has managed ecological risk assessments and contributed to human health risk assessment at several Superfund sites. He has developed models and software to support risk assessment for contaminated sites, including Superfund sites, and his recently completed modeling efforts include the FISHRAND model for PCB bioaccumulation in fish, used by the EPA for Hudson River Superfund site risk assessment. Dr. Linkov currently supports development of the Army Risk Assessment Modeling System (ARAMS) and also develops the risk-trace model for spatially explicit ecological risk assessment for the American Chemistry Council (ACC). One of the focuses of his current research is integrating risk assessment and multi-criteria decision analysis tools in managing contaminated sites. He is currently developing the Questions and Decision (QnD) model for environmental management at contaminated and disturbed sites for the US Army Corps of Engineers. He has published widely on environmental policy, environmental modeling, and risk analysis, including five books and over 70 peer-reviewed papers and book chapters. Dr. Linkov has directed and chaired six international conferences

on risk assessment and modeling and participated in organizing many others. Dr. Linkov serves as a Scientific Advisor to the Toxic Use Reduction Institute, a position which requires nomination by the Governor of Massachusetts. Dr. Linkov is President for the Society for Risk Analysis-New England. He also is the Past Chair of the SRA Ecological Risk Assessment Specialty Group and participates in several SRA and SETAC Committees. Dr. Linkov has served on many review and advisory panels for US and international agencies, including risk assessment reviews for Superfund sites. Over the last two years, Dr. Linkov's research has been supported by the US Army, Army Corps of Engineers, EPA, DOT, DOE, NOAA, North Atlantic Treaty Organization, US Chamber of Commerce, American Chemistry Council, Dow Chemical, Chevron, and various private clients.

Randy Maddalena

Lawrence Berkeley National Laboratory

Dr. Randy Maddalena is a Scientist in the Environmental Chemistry, Exposure and Risk Analysis Group within the Environmental Energy Technologies Division at Lawrence Berkeley National Laboratory. He received his BS in Environmental Toxicology (1992) and Ph.D. in Agricultural and Environmental Chemistry (1998) from the University of California, Davis. The primary focus of his research is development, evaluation and application of models that predict chemical fate in multiple environmental media (air, water, soil, vegetation, sediment) and chemical exposures through multiple pathways (drinking water, food, feed, indoor air) for both human and ecological receptors. He also develops tools and methods for performing probabilistic risk assessment and sensitivity analysis applied to complex regulatory models. His most recent work combines the use of models and experimental data to investigate how vegetation influences the environmental fate and transport of semivolatile organic pollutants and how the uptake of these pollutants into ecological or agricultural food chains might contribute to dietary exposures. Dr. Maddalena is a Co-chair of the Society of Environmental Toxicology and Chemistry (SETAC) Advisory Group on Fate and Exposure Modeling where he serves as an Editor of the advisory group's column in the SETAC Globe. He is also a member of the SAB's Integrated Human Exposure Committee. He has received funding from the EPA's Office of Emergency and Remedial Response developing methods to construct inputs for probabilistic risk assessment; the DOE's Fossil Energy Program for experimental work on plant uptake of petroleum related hydrocarbons; and from the EPA's Office of Air Quality Planning and Standards for his work on the TRIM.FaTE model. He currently receives funding from the EPA's National Exposure Research Lab for research on fate and exposure models; the FAA for research into pesticide exposure on airliners; and from the California Air Resources Board from research on pollutant emissions from office equipment.

Paulette Middleton

Panorama Pathways

Dr. Paulette Middleton has 30 years experience leading air quality and related environmental programs that inform policy using integrated modeling, stakeholder consensus building and diverse communication strategies. For example, she developed and applied a number of urban aerosol dynamics models; was a leader on the modeling team that created the Regional Acid Deposition Model (RADM); extended RADM to include aerosol dynamics -- DAQM

(Denver Air Quality Model) and applied DAQM to studies of visibility in the Front Range of Colorado; led the development and application of the integrated assessment of scenarios (i.e., linking air quality to economic, environmental and social impacts and driving forces using a variety of modeling approaches) for visibility protection in the Western US as the cornerstone of the Grand Canyon Visibility Transport Commission efforts; created and applied a Visibility Assessment Screening Technique to illustrate differences in visibility changes resulting from SO₂ and NO_x emission reductions in different areas of the US; modified and applied ICST and related models to explore the impacts of chemical by-products in the vicinity of point sources; led the design of integrated analysis systems applied to air quality and climate related problems; lead author of air quality modeling and application reviews; and has been serving as an expert advisor to a number of programs using integrated modeling systems as well as individual air quality models. Middleton's previous EPA Science Advisory Board service includes: Current Member of the REM Guidance Review Panel; Chair of the Air Quality Modeling Subcommittee (AQMS) evaluating EPA's assessment of the benefits and costs of the Clean Air Act; Member of the Environmental Modeling Committee responsible for the recent review of the National Air Toxics Assessment, which included an evaluation of mercury and toxic VOC risk assessment; Member of the Research Strategy Advisory Committee, which provided direction to EPA on critical research needs; Member of the Clean Air Science Advisory Committee during its review of the current ozone and fine particulate matter standards; and Member of the Environmental Futures Subcommittee developing guidelines for EPA foresight. Dr. Middleton has been director of the NSF and NASA funded Global Emissions Inventory Activity (GEIA) Center since GEIA's inception in 1990. In 2002, she created Panorama Pathways and since then has been a Special Advisor, providing advice on adequacy of air quality modeling and developing issue papers to help inform policy for several groups, including Environmental Defense, Western Resource Associates, Yellowstone Coalition, Northern Cheyenne Indian tribe, EPA Region 8, Colorado Department of Public Health & the Environment; U.S. Department of Justice; and State of New Jersey, Division of Law. She also was lead author on assessments of the development of renewable hydrogen in the US and around the world and is an elected member of the Board of Directors for the American Solar Energy Society, representing the Sustainability Division of that society. She works with Aspen Hill Films on informational videos about energy and the environment and with Positive Pace on positive news about world progress. Previously she held research, program development and leadership/executive positions at the National Center for Atmospheric Research, Atmospheric Sciences Research Center at the State University of New York at Albany, Science & Policy Associates, Inc, and RAND. Dr. Middleton's current source of funding is from the National Science Foundation, NASA, and the Northern Cheyenne Indian Tribe.

Michael Newman

College of William and Mary, Virginia Institute of Marine Science

Dr. Michael Newman is Professor of Marine Science at the College of William and Mary, Virginia Institute of Marine Science. He received degrees in zoology from the University of Connecticut (B.A., 1974; M.S., 1978) and environmental sciences from Rutgers University (M.S., 1980; Ph.D., 1981). After his postdoctoral studies, Dr. Newman was a research ecologist at the University of Georgia's Savannah River Ecology laboratory. He now holds a Professor of Marine Science position at the College of William and Mary's School of Marine

Science after ending a three-year term as Dean of Graduate Studies of the School of Marine Science. Dr. Newman's research emphasizes quantitative methods in ecotoxicology with topics of interest ranging from chemical measurement statistics to QSAR-like models for predicting metal ion effects to contaminant effects on population genetics to methods of predicting community level effects. He has authored approximately 100 publications on these topics including four books, Quantitative Methods in Aquatic Ecotoxicology, Fundamentals of Ecotoxicology, Population Ecotoxicology, and Community Ecotoxicology. He also edited several books, Metal Ecotoxicology, Hierarchical Ecotoxicology, Risk Assessment: Logic and Measurement, Coastal and Estuarine Risk Assessment, and Risk Assessment with Time-to-Event Models. Dr. Newman is active in advisory service. He served on Organisation for Economic Co-operation and Development (OECD), U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), National Academy of Sciences (NAS), and state environmental regulatory and risk assessment committees and panels. Dr. Newman was one of two U.S. members of an OECD team charged with assessing statistical methods for analyzing toxicity data. Work with DOE involved complex-wide consideration of data quality objectives for risk assessment activities, and various site-specific advisory services to the Savannah River and Hanford sites. He has been a member of numerous EPA teams including the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) ECOFRAM working group, two FIFRA science advisory panels, the Chesapeake Bay Office science advisory board, a Food Quality Protection Act (FQPA) scientific review board, and a joint U.S. EPA-Israeli Water Agency working group. Dr. Newman has reviewed numerous risk assessment documents for EPA and was a consultant to the NAS (Everglades Ecosystem Assessment). He continues to work actively with various Virginia Department of Environmental Quality (DEQ) teams and panels. Dr. Newman currently has funding from NSF for improving ocean science education, DuPont to examine mercury trophic transfer in South River, Virginia, and NOAA to model survival of invertebrates during oil spills. He also has minor contracts with Fish and Wildlife for statistical consulting and Monte Carlo simulation of wildlife exposure to toxicants.

Thomas L. Theis

University of Illinois at Chicago

Dr. Thomas L. Theis is the Director of the Institute for Environmental Science and Policy, a cross-disciplinary unit dedicated to promoting collaborative research on the environment, and Professor of Civil and Materials Engineering at the University of Illinois at Chicago. His areas of expertise include the mathematical modeling and systems analysis of environmental processes, the environmental chemistry of trace organic and inorganic substances, interfacial reactions, subsurface contaminant transport, hazardous waste management, industrial pollution prevention, and industrial ecology. He has been principal or co-principal investigator on over fifty funded research projects totaling in excess of ten million dollars, and has authored or co-authored over one hundred papers in peer reviewed research journals, books, and reports. He is a member of the USEPA Science Advisory Board, and is a former editor of the *Journal of Environmental Engineering*. From 1980-1985 he was the co-director of the Industrial Waste Elimination Research Center (a collaboration of Illinois Institute of Technology and University of Notre Dame), one of the first Centers of Excellence established by the USEPA. In 1989 he was an invited participant on the United Nations' Scientific Committee on Problems in the Environment (SCOPE) Workshop on Groundwater

Contamination, and in 1998 he was invited to by the World Bank to assist in the development of the first environmental engineering program in Argentina. He is the founding Principal Investigator of the Environmental Manufacturing Management Program, one of the Integrative Graduate Education Research and Training (IGERT) grants of the National Science Foundation. Dr. Theis has received research funding from several sources. At present he has grants from the EPA, NSF, Alcoa, Inc., and the Illinois Board of Education.

Barbara Zielinska

Desert Research Institute

Dr. Barbara Zielinska currently holds the position as Research Professor and Director of the Organic Analytical Laboratory at the Division of Atmospheric Sciences of the Desert Research Institute (DRI) in Reno, Nevada. The DRI is an autonomous research division of the University and Community College System of Nevada (UCCSN). DRI was created in 1959 by a special act of the Nevada State Legislature. Under the act and subsequent actions of the University Board of Regents, DRI is charged with conducting basic and applied research in environmental sciences. Dr. Zielinska has been active in the air pollution field for more than 20 years and specializes in the analysis of organic compounds in ambient air and in emission sources. Her list of publications includes over 100 papers concerning the sources, ambient concentrations and atmospheric transformations of gas- and particle-associated organic species, such as polycyclic aromatic hydrocarbons (PAH), nitro-PAH and other toxic air pollutants. Her research is funded by grants and contracts from federal and state agencies (such as Department of Energy, Health Effect Institute, and California Air Resource Board) and some private organizations (such as American Petroleum Institute and Coordinating Research Council). Dr. Zielinska received her M.Sc. degree from the Lodz University of Technology, Poland, and her Ph.D. degree from the Polish Academy of Sciences, both in Chemistry.