Invitation for Public Comment on the List of Candidates for the EPA Science Advisory Board 2015 Scientific and Technological Achievement Awards Committee

February 23, 2015

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a Federal Register Notice (Volume 79, Number 229, Pages 70867 – 70868) published on November 28, 2014 that it was seeking public nominations of technical experts to serve on the SAB's 2015 Scientific and Technological Achievement Awards (STAA) Committee. The SAB Staff Office sought public nominations of experts in the following disciplines as they relate to human health and the environment: air pollution exposure; chemistry and geochemistry; chemical engineering; civil and environmental engineering; ecology; environmental economics; groundwater and surface water contaminant fate and transport; human health effects and risk assessment; hydrology and hydrogeology; monitoring and measurement methods for air and water; risk management; transport and fate of contaminants; water quality; and water and wastewater treatment processes. The SAB Staff Office stated it was especially interested in scientists with expertise described above who have knowledge and experience in air quality; aquatic and ecological toxicology; chemical safety; climate change; community environmental health; dosimetry and inhalation toxicology; drinking water; ecological modeling; ecological risk assessment; ecosystem services; energy and the environment; epidemiology; green chemistry; homeland security; human health dosimetry; mechanisms of toxicity and carcinogenicity; metabolism; statistics; sustainability; toxicokinetics; toxicology; waste and waste management; and water re-use.

The SAB Staff Office Director will make the final decision about who will serve on the Committee based on all relevant information. This information includes a review of the confidential disclosure form (EPA Form 3110-48) and information independently gathered by staff and public comments. For the EPA SAB Staff Office a balanced review committee includes candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the charge. Specific criteria to be used in evaluating a candidate include: (a) scientific and/or technical expertise, knowledge, and experience (primary factors); (b) availability and willingness to serve; (c) absence of financial conflicts of interest; (d) absence of an appearance of a loss of impartiality; (e) skills working in committees, subcommittees and advisory panels; and, (f) for the panel as a whole, diversity of expertise and scientific points of view.

The SAB Staff Office has identified the following list of candidates for this Committee based on their relevant expertise and willingness to serve. The SAB Staff Office has identified the following list of candidates for this Committee based on their relevant expertise and willingness to serve. This is an update to the List of Candidates that was posted on February 9, 2015. In that earlier version, the SAB Staff Office inadvertently omitted one candidate (Dr. Jay Turner).

We hereby invite public comments on the attached List of Candidates that the SAB Staff Office should consider in the formation of this Committee. Comments should be submitted to the attention of Mr. Edward Hanlon, Designated Federal Officer, no later than March 16, 2015. E-mailing comments (hanlon.edward@epa.gov) is the preferred mode of receipt. Please be advised that comments received are subject to release under the Freedom of Information Act.

Aelion, C. Marjorie

University of Massachusetts, Amherst

Dr. C. Marjorie Aelion is the Professor of Environmental Health Sciences and Dean of the School of Public Health and Health Sciences at the University of Massachusetts Amherst. Dr. Aelion holds a B.S. in Environmental Sciences from at the University of Massachusetts Amherst, an S.M.C.E. in Civil Engineering from Massachusetts Institute of Technology, and a Ph.D. in Environmental Sciences and Engineering from the University of North Carolina, Chapel Hill. The emphasis of her research and teaching is on remedial technologies and environmental contaminants, and associations between environmental contaminants and health outcomes. Dr. Aelion's professional interests include: environmental health; civil and environmental engineering; fate and transport of contaminants in surface and subsurface waters; soil and sediment treatment; monitoring and measurement methods for water; hazardous waste site remediation; and human health effects and risk assessment. She has published numerous articles in leading environmental engineering, environmental science, and environmental health journals; book chapters; and two books (*Environmental Isotopes in Biodegradation and Bioremediation*, Taylor and Francis, 2010; *Innovative Methods in Support of Bioremediation*, Battelle Press, 2001). Dr. Aelion's research has been supported by grants from and contracts with both government agencies and private foundations, with core research support primarily from the federal government (National Institutes of Health, National Oceanic and Atmospheric Administration, National Science Foundation, and U.S. Department of Energy) with additional grant support from state governments and foundations. Dr. Aelion received the National Science Foundation Presidential Faculty Fellow Award in Engineering, the Harriet Hylton Barr Distinguished Alumni Award for Commitment and Service to Public Health, and two Fulbright awards, one in France and one in the Netherlands. Dr. Aelion currently serves as a member of the Board of Directors for the Association of Schools and Programs of Public Health and as its secretary/treasurer, and serves on the Board of the Massachusetts Biologics Laboratories, Inc. She has served as Managing Editor for Biodegradation, and is currently serving on the editorial boards for Bioremediation Journal, Biodegradation, and the International Journal of Oceans & Oceanography.

Alshawabkeh, Akram

Northeastern University

Dr. Akram Alshawabkeh is a Geoenvironmental Engineering Professor at the Department of Civil and Environmental Engineering, Northeastern University. He holds a B.E. in Civil Engineering from Yarmouk University, Irbid, Jordan, an M.Sc. in Civil Engineering from Jordan University of Science and Technology (JUST), Irbid, Jordan, and a Ph.D. in Civil and Environmental Engineering from Louisiana State University, Baton Rouge, LA. Dr. Alshawabkeh is the George A. Snell Professor of Engineering at Northeastern University and a fellow of the American Society of Civil Engineering (ASCE). He is the Director of the "Puerto Rico Test site for Exploring Contamination Threats (PROTECT)" Superfund Research Program (SRP) Center, funded by the National Institute of Environmental Health Sciences (NIEHS). Dr. Alshawabkeh is an internationally-recognized expert in coupling soil behavior with geochemistry and geomechanics, contaminant fate and transport in soil and groundwater, soil remediation, electrokinetic/electrolytic processes and modeling. His work is summarized in more than 180 publications, including 100+ peer-reviewed journal papers or book chapters. As part of the PROTECT Center that he directs, Dr. Alshawabkeh's current research is focused on assessment of contamination exposure through aquifers in karst regions, potential impacts on public health (specifically preterm birth) and development of remediation strategies. In addition to work funded by NIEHS, he has also led or collaborated on research projects sponsored by the National Science Foundation (NSF), U.S. Army Corps of Engineers, U.S. Department of Energy, and industry. He is a Fulbright Scholar and a recipient of the 2014 ASCE Thomas A. Middlebrooks Award. He has a strong service record, led and participated in many research workshops and organized several technical conference sessions and activities. Dr. Alshawabkeh is a former chair of Committee AFP40 "Physiochemical and Biological Processes in Soil" of the Transportation Research Board of the National Academies and is a member of several national and international committees. He is an editorial board member for several journals and was co-chair of the technical program of 2008 Annual Congress of the Geo-Institute of ASCE on "GeoCongress 2008: The Challenge of Sustainability in the Geoenvironment". Dr. Alshawabkeh has a track record of collaboration with government laboratories and industry. Dr. Alshawabkeh's recent research has been supported by grants from the National Science Foundation, National Institutes of Health, and National Institute of Environmental Health Sciences, and various state and local governments, entities, and foundations.

Arnold, W. Ray

Chevron Energy Technology Company

Dr. W. Ray Arnold is a Staff Scientist and subject matter expert in environmental risk assessment for the Chevron Energy Technology Company. He holds a B.S. and M.S. in Biology from Stephen F. Austin State University and a Ph.D. from the Institute of Applied Science at the University of North Texas. Dr. Arnold has published 27 articles, one book, one book chapter, four conference proceedings, and 83 published abstracts books on ecology, ecotoxicology and risk assessment. His current research efforts are in the areas of ecotoxicology and risk assessment toxicology, particularly in addressing (1) how pressure at depth affects the toxicity of hydrocarbons to deep water organism, findings can improve risk assessment of hydrocarbon releases in deep water; (2) development of alternative preservation techniques for maintaining sample hydrocarbon concentration integrity for extended durations beyond traditional methods, findings would enable shipment of environmental samples from world-wide remote locations to high-quality laboratories without loss of sample integrity; (3) methods of assessing risk of formulated compounds used on production platforms, finding would provide a mechanism for directing internal efforts toward substitution compounds of concern with effective yet greener formulations. Dr. Arnold receives no Federal research funding. His past research activities were focused on applied studies leading to development of National aquatic life water quality criteria for methyl tertiary-butyl ether (MTBE) using traditional U.S. Environmental Protection Agency's (EPA) criteria development methods and for copper through adaptations of the Biotic Ligand Model. Dr. Arnold's service to science includes contributions through a variety of activities including but not limited to the Society of Environmental Toxicology and Chemistry's Senior Resource Advisory Group, the Journal of Environmental Toxicology and Chemistry's Editorial Board, the Society of Environmental Toxicology and Chemistry's student career workshop, Society of Environmental Toxicology and Chemistry sponsored Pelston workshop on Whole-Effluent Toxicity (invited expert participant), and periodic editor/reviewer for: Environmental Toxicology and Chemistry Journal; Human and Ecological Risk Assessment Journal; Bulletin of Environmental Contamination and Toxicology; Proposals to the EPA seeking educational funding; Aquatic Toxicology Journal; and Ecotoxicology and Environmental Safety.

Bejarano, Adriana C.

Research Planning Inc.

Dr. Adriana C. Bejarano is an aquatic toxicologist affiliated with Research Planning Inc. (RPI), and the University of South Carolina where she is an Adjunct Professor at the Department of Environmental Health Sciences. Dr. Bejarano is an environmental scientist with broad experience in applied ecology and aquatic eco-toxicology. She has studied the ecological and toxicological effects of organic pollutants on marine and estuarine invertebrates, and has skills in applied ecology, modeling, and ecological risk assessments of contaminated sediments and complex contaminant mixtures, and statistical data analysis. Through RPI, Dr. Bejarano has been part of the Scientific Support Team to the U.S. Coast Guard provided by the National Oceanic and Atmospheric Administration's Emergency Response Division (NOAA-ERD) for oil and chemical spills. She has provided on-site and off-site emergency consultation and scientific support related to the potential environmental consequences associated with oil and hazardous chemical incidents, including risk characterization and potential toxicological effects to aquatic receptors, and quantitative reports and analyses of potential levels of concern. Through the University of South Carolina, she has conducted research on the environmental impacts of illicit crop cultivation in her native Colombia. Dr. Bejarano holds a B.A. in Marine Biology from Universidad del Valle, Colombia, and a M.S. in Marine Science and a Ph.D. in Aquatic Toxicology from the University of South Carolina. Past funding through RPI came from the Coastal Response Research Center, University of New Hampshire. Dr. Bejarano does not currently receive external research grants from either government agencies, private companies, or foundations.

Brandt, Sylvia

University of Massachusetts, Amherst

Dr. Sylvia Brandt is an Associate Professor of Econometrics and Environmental Economics at the University of Massachusetts, Amherst, where she holds a joint appointment in the Department of Resource Economics and the Center for Public Policy and Administration. Her primary research interests include valuation of chronic illnesses, measurement of disparities in health outcomes and methodologies for evaluating health interventions. Her work expands on traditional economic models to include factors such as exposure to environmental triggers, disparities in asthma treatment, and diversity of preferences among affected populations. Dr. Brandt specializes in developing surveys on risk perceptions and health behaviors to improve models of household behaviors. She has also previously done extensive research on fisheries regulation, focusing on the design, implementation, and effect of tradable property rights. Dr. Brandt's research in the past two years has been supported by grants from the South Coast Air Quality Management District and the National Science Foundation. Her current projects include estimating the costs of asthma and heart attacks linked to traffic-related pollution (funded by the South Coast Air Quality Management District) and modeling responses to climate change (funded by NSF). In 2005-2006 Dr. Brandt was a Visiting Scholar in the School of Public Policy at the University of California, Berkeley. She has served as a reviewer for a dozen public health and environmental economics journals. She holds degrees in economics (B.A., Oberlin College; M.S., University of California, Berkeley) and agricultural and resource economics (Ph.D., University of California, Berkeley).

Brooks, Bryan W.

Baylor University

Dr. Bryan W. Brooks is Professor in the Department of Environmental Science and Institute of Biomedical Studies, Director of the Environmental Health Science program and a core scientist with the Center for Reservoir and Aquatic Systems Research at Baylor University, Waco, Texas, USA. Dr. Brooks received a B.S. and M.S. in biological sciences from the University of Mississippi (Oxford, Mississippi, USA) and a Ph.D. in environmental science from the University of North Texas (Denton, Texas, USA). In 2014, he served as a Visiting Erskine Fellow with the Environmental Science Program and Department of Chemistry at the University of Canterbury in Christchurch, New Zealand, and as the Fulbright Visiting Research Chair in Water and the Environment at the University of Lethbridge in Alberta, Canada. His research focuses on environmental, aquatic and comparative toxicology and pharmacology, sustainable molecular design, developing approaches to define water quality and risks of contaminants of historical and emerging concern, water reuse, and the ecology and toxicology of harmful algae blooms. Dr. Brooks' research has been supported by grants from government agencies, with core grant research support primarily being from the federal government (e.g., National Science Foundation, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration), with additional grant support from state and local governments, businesses, and foundations. He has published over 120 journal articles, editorials and book chapters. Dr. Brooks serves on the editorial boards of *Science of the Total Environment* (Elsevier) and *Toxicon* (Elsevier). He is an Associate Editor of *Environmental Toxicology and Chemistry* (Wiley) and *Integrated Environmental Assessment and Management* (Wiley), and Editor-in-Chief of *Environmental Management* (Springer).

Bui, Linda

Brandeis University

Dr. Linda Bui received her Ph.D.in Economics from Massachusetts Institute of Technology (MIT) and is currently an Associate Professor of Economics at Brandeis University. She has taught at Boston University, the University of Michigan, MIT, and the Sloan School of Management. Professor Bui has done work in the area of environmental regulation and its effects on firm-level behavior, strategic environmental behavior between autonomous countries in the context of trans-boundary pollution, and the effectiveness of public disclosure as a regulatory instrument for the environment. Dr. Bui's current research focuses on health outcomes and the environment, and issues of inequality and the environment. She currently has funding through Brandeis University's Theodore and Jane Norman grant to study the relationship between poverty, health, and the environment.

Campbell, Jerry

The Hamner Institutes for Health Science

Dr. Jerry Campbell is a Scientist and Associate Director of the Center for Human Health Assessment in the Institute for Chemical Safety Sciences at The Hamner Institutes for Health Science. He holds a B.S. and M.S. in Environmental Health Science, and a Ph.D. in Toxicology from the University of Georgia. Dr. Campbell's research interests include the development of physiologically based models and their application to chemical risk assessment. His areas of focus include the incorporation of tissue dosimetry with probabilistic methodologies and mode-of-action information into quantitative chemical risk assessment and the interpretation of human biomonitoring data in exposure assessment to environmental chemicals. In particular, with a team that includes Drs. Harvey Clewell and Melvin Andersen, Dr. Campbell's research is focused on the development of a "State of the Science" methodologies to reduce uncertainty in human risk assessment from exposure to a wide range of chemicals including phthalates, naphthalene, formaldehyde, nickel, trichloroethylene and pesticides. The PBPK models take into account differences in absorption, distribution, metabolism and elimination that play a critical role in target tissue dosimetry. Dr. Campbell is also extensively involved in The Hamner's Tox21 program to reduce the use of animal species in toxicology testing. His primary focus is on the improvement of techniques to derive parameters from In Vitro assays that can be scaled to whole tissues. Dr. Campbell's recent publications include "In vitro metabolism of di(2-ethylhexyl) phthalate (DEHP) by various tissues and cytochrome P450s of human and rat", "Formaldehyde: integrating dosimetry, cytotoxicity, and genomics to understand dose-dependent transitions for an endogenous compound", "Challenges in the application of quantitative approaches in risk assessment: a case study with di-(2-ethylhexyl)phthalate", "Evaluation and prediction of pharmacokinetics of Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) in the monkey and human using a PBPK model ", "Quantitative interpretation of human biomonitoring data", and "A PBPK modeling assessment of the competitive metabolic interactions of JP-8 vapor with two constituents, m-xylene and ethylbenzene." Dr. Campbell's research has been supported by grants from private companies and governmental agencies including the American Chemistry Council Long Range Initiative, U.S. Environmental Protection Agency and the National Institutes for Environmental Health Sciences.

Chandran, Kartik

Columbia University

Dr. Kartik Chandran is Associate Professor of Earth and Environmental Engineering and Director of the Columbia University Biomolecular Environmental Sciences Program and the Wastewater Treatment and Climate Change Program at Columbia University, New York, NY. Dr. Chandran holds a B.S. in Chemical Engineering from the Indian Institute of Technology, Roorkee and a Ph.D. in Environmental Engineering from the University of Connecticut, Storrs. The main focus of Prof. Chandran's work is on sustainable sanitation, resource recovery, re-engineering the microbial nitrogen cycle and links to the global water, energy, food and carbon cycles. Within this framework also lies the stimulating prospect for rendering water quality as the bonus. Under the stewardship of Dr. Chandran, the directions of biological wastewater treatment and biological nitrogen removal were established for the first time ever in the history of Columbia University. Dr. Chandran's work has been presented in numerous peer reviewed articles in leading environmental engineering and science journals and book chapters. Dr. Chandran's research over the past two years has been supported by grants from and contracts with both government agencies and private companies, with core research support primarily being from the federal government (U.S. Environmental Protection Agency, National Science Foundation, Department of Energy, Department of Agriculture), with additional grant support from state and local governments, industry, and foundations. Prof. Chandran serves on the nominating committee of the Stockholm Water Prize and has served on the Board of Trustees of the Water Environment Federation. He was appointed fellow of WEF in 2013. Select awards received by Dr. Chandran include invited participation in the National Academy Engineering 2015 China-America Frontiers of Engineering, a guest professorship from Royal Dutch Academy of Arts and Sciences, 2014, the Paul Busch Award, 2010, National Science Foundation CAREER award 2009 , Invited professorship at the Kluyver Labs, Delft University of Technology, 2008, Summer Faculty Fellow, National Academy of Science, 2007 (hosted by the National Risk Management Research Labs, Environmental Protection Agency, Cincinnati). Dr. Chandran serves as an Associate Editor for Frontiers of Microbiology (part of the Nature Publishing Group, 2011 – to date) and the Journal of Water and Climate Change (IWA publishing).

Chapman, Peter M.

Golder Associates Ltd.

Dr. Peter M. Chapman is a Senior Environmental Scientist at Golder Associates Ltd (Vancouver, BC, Canada) and Chapema Environmental Strategies Ltd (North Vancouver, BC, Canada). He holds a B.Sc. in Marine Biology, M.Sc. in Biological Oceanography, and Ph.D. in Benthic Ecology at the University of Victoria, BC, Canada. Dr. Chapman's professional areas of specialization are ecotoxicology/toxicity testing, ecological risk assessment, and aquatic ecology. He has directed studies assessing contaminants in water and sediment, and the effects of climate change, habitat change, and invasive species on fresh, marine, and estuarine aquatic environments. Dr. Chapman has served as an advisor to the federal governments of both the United States and Canada for environmental issues involving chemical fate and effects. He has developed and verified a variety of bioassessment protocols for measuring/ predicting toxicity and bioaccumulation, including the use of benthic indicators for contaminant analysis and various toxicity tests. Dr. Chapman co-developed the Sediment Quality Triad weight-of-evidence approach to determining pollution-induced degradation in aquatic ecosystems. He is the author of over 220 refereed journal and book publications, 3 edited books, and over 300 technical reports on subjects including: taxonomy, aquatic ecology, ecotoxicology, development of monitoring programs, and risk assessment of chemical and non-chemical stressors. Dr. Chapman is Senior Editor for the journal Human and Ecological Risk Assessment, Editor of the Learned Discourses in the journal Integrated Environmental Assessment and Management, and Editor of the journal Environmental Toxicology and Chemistry. He serves on the Editorial Board of the journal Marine Pollution Bulletin. Dr. Chapman's research has been conducted without the support of grants from either government agencies or private companies. In 1996 he received a U.S. Environmental Protection Agency's Region 10 award for resolving environmental issues. In 2001 the Society of Environmental Toxicology and Chemistry (SETAC) awarded Dr. Chapman its highest award, the Founders Award, for an outstanding career and contributions to the environmental sciences. In 2013 he was received an award from the journal Environmental Toxicology and Chemistry as an Exceptional Reviewer. In 2014 he was made a SETAC Fellow.

Chow, Judith

The Desert Research Institute

Dr. Judith Chow holds the Nazir and Mary Ansari Chair in Science and Entrepreneurialism and is a Research Professor in the Division of Atmospheric Sciences of the Desert Research Institute (DRI) of the Nevada System of Higher Education in Reno, Nevada. Dr. Chow has led DRI's Environmental Analysis Facility since its inception in 1985. She earned her B.S. degree in Biology from Fu-Jen Catholic University in Taiwan (1974), her M.S. degree in Environmental Health Science (1983) from Harvard University, and her Sc.D. degree in Environmental Science and Physiology (1985) from Harvard University. For more than 30 years, she has conducted air quality studies and performed data analysis to improve understanding of effects of air quality on human health, visibility, historical treasures, ecosystems, and climate. Dr. Chow is currently the principal investigator for: 1) organic and black carbon measurements with the U.S. Environmental Protection Agency's (EPA) Chemical Speciation Network (CSN) and the Interagency Monitoring of Protected Visual Environments (IMPROVE) network; 2) tracking changes in air quality with control measures at the ports of Los Angeles and Long Beach; and 3) conducting real-world emissions characterization in Canada's Athabasca Oil Sands region. She has been principal investigator or a major collaborator in more than 50 large air quality studies (and many smaller ones) across the United States and in other countries. Dr. Chow prepared and revised sections of the EPA's PM Criteria Document pertaining to chemical analysis and source emissions and contributed to EPA guidance documents on network design, continuous particulate monitoring, and particulate matter chemical speciation. Dr. Chow's research has been sponsored by grants and contracts from the federal government (e.g., EPA, Department of Interior, Department of Defense), local, state, and international air quality management authorities, industry, and foundations. As past chair and a member of the Air & Waste Management Association's (A&WMA) Critical Review Committee, Dr. Chow has coordinated and reviewed Critical Reviews and discussions on environmental science and technology topics. She was chair of the Publications Committee for the *Journal of the Air & Waste Management Association* and serves on Editorial Boards and/or as Associate Editor for several international journals including: the *Journal of Air Quality, Atmosphere, & Health*, *Aerosol and Air Quality Research*, *Atmospheric Pollution Research*, and *Particuology*. Dr. Chow was a member of the National Research Council's (NRC) committees on Research Priorities for Airborne Particulate Matter (1998–2003) and Energy and Air Pollution Futures in the U.S. and China (2004-20080; she also served on the NRC Board on Environmental Studies and Toxicology (2002–2005). She has served on advisory panels for the EPA, National Environmental Respiratory Center [New Mexico], and South Coast [California] Air Quality Management District. Dr. Chow has been a member of the Air Monitoring and Methods Subcommittee (AMMS, formerly the Ambient Air Monitoring and Methods Subcommittee) of the EPA's Clean Air Scientific Advisory Committee (CASAC) since 2004. She is the principal author or co-author of more than 340 peer-reviewed articles and more than 90 peer-reviewed book chapters and has been recognized by ISIHighlyCited.com in ecology and environment with more than 13,000 citations of her work. Dr. Chow was selected for the 2011 Shaanxi Province Friendship Award in China and the California Air Resources Board 2011 Haagen-Smit Clean Air Award for her contributions to air quality science and technology.

Cunningham, Jeffrey A.

University of South Florida

Dr Jeffrey Cunningham is an Associate Professor in the Department of Civil and Environmental Engineering at the University of South Florida. Dr Cunningham earned his B.S. in Chemical Engineering at Rice University (conferred *magna cum laude*), his M.S. in Civil Engineering from Stanford University (with specialty in Environmental Engineering and Science), and his Ph.D. in Civil and Environmental Engineering from Stanford University. The emphasis of Dr Cunningham's research program is on the behavior of contaminants in the environment, including remediation of contaminated soil and water. Dr Cunningham's professional interests and expertise also include: physical, chemical, and biological processes for water treatment and water quality control; water resources and water re-use; mass transfer in natural and engineered environmental systems; recovery of valuable products from waste streams; and geologic sequestration of carbon dioxide for mitigation of global climate change. He has authored or co-authored over 30 papers in peer-reviewed scientific journals. Dr Cunningham's research has been supported by grants from both government agencies and private companies, including support over the past two years from the National Science Foundation, U.S. Environmental Protection Agency, and U.S. Geological Survey. Dr Cunningham has served as a proposal reviewer for numerous funding agencies, including the U.S. Department of Defense, U.S. Department of Energy, National Institutes of Health, and National Science Foundation. He has also served as a reviewer for over two dozen scientific journals, including *Advances in Water Resources*, *Applied Catalysis B: Environmental*, *Environmental Science & Technology*, *Ground Water*, *Journal of Catalysis*, *Journal of Contaminant Hydrology*, *Journal of Hazardous Materials*, *Science of the Total Environment*, and *Water Resources Research*. He has twice been awarded an Editor's Citation for Excellence in Refereeing by *Water Resources Research*.

Daston, George

The Procter & Gamble Company

Dr. George Daston is Victor Mills Society Research Fellow at the Procter & Gamble Company, the highest scientific rank achievable. He holds a B.S. in Biology from University of Miami (1978) and a Ph.D. in Developmental Biology and Teratology (1981) from the University of Miami, Coral Gables, Florida. Dr. Daston has published over 100 articles and book chapters and edited five books in toxicology and risk assessment. His current research efforts are in the areas of toxicogenomics and mechanistic toxicology, particularly in addressing how findings in these fields can improve risk assessment for chemicals and the development of non-animal alternatives. Dr. Daston has served as President of the Teratology Society, Councilor of the Society of Toxicology, on the U.S. Environmental Protection Agency's (EPA) Science Advisory Board and Board of Scientific Counselors, National Toxicology Program Board of Scientific Counselors, National Research Council's Board of Environmental Studies and Toxicology, and National Children's Study Advisory Committee. In his advisory role at EPA, he oversaw the chartering and first five years of EPA's acclaimed Computational Toxicology Program. He is Editor-in-Chief of Birth Defects Research: Developmental and Reproductive Toxicology. With scientists at the Humane Society of the U.S., Dr. Daston manages the AltTox website, which is devoted to the exchange of scientific information leading to the development of in vitro replacements for toxicity assessments. Dr. Daston has been awarded the Josef Warkany Lectureship and the Distinguished Service Award by the Teratology Society, the George H. Scott Award by the Toxicology Forum, the Society of Toxicology's Best Paper of the Year Award, and is an elected Fellow of AAAS. Dr. Daston is an adjunct Professor of Pediatrics at University of Cincinnati. Dr. Daston receives no federal research funding.

Dockery, Douglas W.

Harvard Chan School of Public Health

Dr. Douglas W. Dockery is the John L. Loeb and Frances Lehman Professor of Environmental Epidemiology and Chair of the Department of Environmental Health at the Harvard Chan School of Public Health. He is the Director of the Harvard-National Institute of Environmental Health Sciences (NIEHS) Center for Environmental Health Sciences, currently in its 52nd year. He received a B.S. in physics from the University of Maryland, an M.S. in meteorology from the Massachusetts Institute of Technology, and a ScD in environmental health from the Harvard School of Public Health. Dr. Dockery has been studying air pollution exposures and their health effects for almost 40 years. He served as Principal Investigator of the Harvard Six Cities Study of the Respiratory Health Effects of Respirable Particles and Sulfur Oxides. His current work includes assessment of the health benefits of air pollution controls. Dr. Dockery has published over two hundred peer reviewed articles. His 1993 New England Journal of Medicine paper on air pollution and mortality in the Harvard Six Cities study is the single most cited air pollution paper. In 1998, he was honored with the first John Goldsmith Award from the International Society of Environmental Epidemiology for Outstanding Contributions to the field. Dr. Dockery's research over the past two years has been supported by grants from and contracts from the federal government (NIEHS, U.S. Environmental Protection Agency) with additional grant support from the Health Effects Institute.

Dungan, Robert

United States Department of Agriculture-Agricultural Research Service

Dr. Robert Dungan is a Research Microbiologist at the Northwest Irrigation and Soils Research Laboratory with the United States Department of Agriculture-Agricultural Research Service (USDA-ARS) in Kimberly, Idaho. He received a B.S. in Environmental Science from Rutgers University and a Ph.D. in Soil and Water Science from the University of California, Riverside. Dr. Dungan currently serves as a Technical Editor for the Journal of Environmental Quality and he once served on the Editorial Board for the Journal of Animal Science. He has made significant scientific contributions on the agricultural use of spent foundry sands, resulting in two awards from the U.S. Environmental Protection Agency. His current research focuses on quantifying and managing bioaerosol and gas emissions from dairy production facilities and manure application sites. Dr. Dungan is continually sought by researchers, federal and state regulators, industry representatives, and other stakeholders for his expertise on these topics. To date he has produced almost 90 publications and has been invited to speak at numerous national and international conferences. The primary source of Dr. Dungan's research funds are provided by the federal government (USDA-ARS), with additional grant support over the past two years from the Independent Dairymen's Environmental Action League.

Englehardt, James D.

University of Miami

Dr. James D. Englehardt is a Professor of Environmental Engineering at the University of Miami. Dr. Englehardt has a B.S. in Chemistry, University of Pittsburgh; M.S. in Environmental Engineering, Colorado State University; and Ph.D. in Environmental Engineering, University of California, Davis. His research group develops design concepts for low-energy, low-emissions, net-zero water buildings, including processes for physicochemical treatment of water, energy recovery, and risk detection. Currently, he serves as Principal Investigator for US National Science Foundation (NSF) projects "EFRI SEED: Design of Autonomous Net-Zero Water Buildings" and "RAPID-GOALI: Development of a Field-Deployable Net-Zero Water Wash Station for Remote Ebola Decontamination." Focus is on the development of principles for the design of net-zero water buildings, off the water grid. These principles represent a paradigm shift from centralized reduction of oxygen demand, to energy-minimal conveyance and permanent destruction of pharmaceuticals, responsive to technological evolution. Current projects span sustainable treatment system scaling and design; sociocultural and architectural acceptance; and real-time risk assessment. Biologically-inspired design aspects target production of a high quality mineral water. Behavioral simulations, interviews, and focus groups are identifying individual and group barriers to adoption and testing approaches for improving sociocultural acceptability, within the theoretical framework of New Urbanist architecture. Methods of evidence fusion are being developed for machine-learned assessment of in-vitro toxicity from fluorescence spectra and routine water quality data, to ensure system safety. Dr. Englehardt served as Chair of the international workshop "Design of Distributed Urban Net-Zero Water Systems," Miami, FL, May 29 – 30, 2014. In parallel work, the group is developing methods of assessing risk unconditionally, for regulation and planning, including development of a general multivariate predictive Bayesian dose-response function for assessment of cumulative risks of carcinogenic and non-carcinogenic health stressors, in mixtures and individually, based on available and potentially conflicting information, based on principles of self-organization and information theory. Other applications include Bayesian models to locate submerged spilled oil, and assessment of health, environmental, and economic risks for planning. Sources of Dr. Englehardt's research funding over the past two years include the U.S. National Science Foundation, with contribution from the US Environmental Protection Agency, and Engineered Control Systems, Inc., Miami, FL, with in-kind contributions from industrial suppliers. Awards include the *Johnson A. Edosomwan Outstanding Publication Award*, "Treatment of Landfill Leachate by Fenton Process," Water Research, University of Miami College of Engineering, 2014; *Science Advisor's Award*, U.S. Environmental Protection Agency, National Center for Environmental Assessment, Cincinnati; the *Robert C. Barnard Environmental Science & Engineering Award*, American Association for the Advancement of Science and the U.S. Environmental Protection Agency; and two University of Miami *Eliahu I. Jury Awards* for excellence in research. Recent service for national professional organizations includes service as an Editorial Board Member, American Society of Civil Engineers – American Society of Mechanical Engineers (ASCE-ASME) Risk and Uncertainty in Engineering Systems, 2013 – present. Dr. Englehardt was nominated for a position on the Board of Directors, Association of Environmental Engineering & Science Professors, 2009.

Ergas, Sarina

University of South Florida

Dr. Sarina Ergas is a Professor and Graduate Program Director in the Department of Civil & Environmental Engineering at the University of South Florida, Tampa. She joined the USF faculty in 2009 after 15 years at the University of Massachusetts, Amherst. She holds a BS in Environmental Resources Engineering from Humboldt State University and MS and PhD degrees in Civil & Environmental Engineering from the University of California, Davis. She teaches classes in Biological Principles, Air Pollution Control and Environmental/Water Resources Capstone Design. Her research interests are centered on environmental biological processes, including contributions in the areas of biofiltration for control of air emissions of odors and VOCs, membrane bioreactor applications and industrial wastewater reuse. Her current research is focused on applications of biological nitrogen removal for treatment of municipal and onsite wastewater, stormwater management and anaerobic digester side-streams. Her recent work also focuses on understanding the growth of algae on waste nutrients and water and sanitation in developing countries. She is a past board member and secretary of the Association of Environmental Engineering and Science Professors (AEESP), past chair of the AEESP lectures committee and the current secretary of the AEESP Foundation. She is also an active member of the Water Environment Federation (WEF) and International Water Association (IWA). Dr. Ergas' research has been supported by the National Science Foundation, Environmental Protection Agency, the states of Massachusetts and Florida, the National Fish and Wildlife Fund, the Air Force Center for Engineering and the Environment, the Binational Agricultural Research and Development (BARD) fund, the National Oceanographic and Atmospheric Administration, private industry and local municipal agencies. Dr. Ergas was a 2007 Fulbright Fellow and a 1995 Excellence in Civil Engineering Education (ExCEEd) fellow. Dr. Ergas is a licensed Civil Engineer in the Commonwealth of Massachusetts and an AAEES Board Certified Environmental Engineer.

Fan, Zhi-Hua (Tina)

N.J. Department of Health

Dr. Zhi-Hua (Tina) Fan is Program Manager of Chemical Terrorism, Biomonitoring and Food Testing, N.J. Department of Health (DOH). Prior to joining in the NJ DOH in May 2014, she was Associate Professor at Exposure Science Division, the Department of Environmental and Occupational Medicine at Robert Wood Johnson Medical School, Rutgers University. Dr. Fan serves as Council Member at Rutgers China Office, Internal Advisory Board member for the National Institute of Environmental Health Sciences (NIEHS) Excellence Center at Rutgers University. She was one of the primary founders of the Tri-State (NY, NJ, and PA) Chapter of International Society of Exposure Science (The Chapter), the President of the Chapter from 2010-2012, the Committee of Air Sampling Instruments of the American Commerce Government Industrial Hygiene (ACGIH), Associated editor of Journal of Exposure Science and Environmental Epidemiology, and a reviewer for several scientific journals. She has served as review panel for the STAR program of the U.S. Environmental Protection Agency (EPA), NIOSH (The National Institute for Occupational and Safety Health), and Health effects Institute. She is visiting professor at Tsinghua University, China Petroleum University-Beijing, and Chongqing University.

Dr. Fan received her B.S. and M.S. in Environmental Chemistry from Peking University, and received Ph.D. Degree in Atmospheric Chemistry from the Department of Environmental Sciences and Engineering School of Public Health at the University of North Carolina - Chapel Hill. She is internationally well-known expert in exposure science and environmental health. The primary research of Dr. Fan includes assessment of personal and community exposure to environmental contaminants, particularly exposure to air pollutants in social economically disadvantaged communities, identification of the sources of exposures and the factors that may affect those exposures, and investigation of the underline mechanisms of cardiopulmonary health effects associated with exposure to air pollution in both controlled environmental conditions as well as in the real world, and recently research on air pollution and public health in China. She is one of the leading investigators of the Centers for Disease Control (CDC) newly funded 5-year Biomonitoring Program at the DOH. In 2014 she has won a Global Innovation Initiative grant sponsored by the U.S. and the UK. Scientists from Rutgers, University of Reading in UK, and Chongqing University in China will investigate the impact of changes in ambient air pollution in China on indoor air quality. She was also the PI of a new EPA STAR grant, which will examine the impact of climate change on indoor air quality and cardiovascular health for elderly. Other research interests of Dr. Fan include development of innovative sampling and analytical techniques for the measurements of a variety of air pollutants in indoor, outdoor and personal air. In 2008, with collaboration with the scientists from china Petroleum University-Beijing, Dr. Fan initialized a study and received funds from National Science Foundation-China to investigate post-earthquake exposure to disinfectants and pesticides in Wenchuan earthquake area. Prior to joining in Rutgers University in 1998, Dr. Fan worked as Research Chemist at Research Triangle Institute (RTI), North Carolina to develop EPA sampling and analytical methods for the measurement of various toxic chemical species in furniture coatings, stationary source emissions, herbicides in foods and beverages, and land fill gases. She has published more than 40 scientific research articles, 5 book chapters/invited articles, more than 50 presentations at a variety of scientific conferences, including as an invited speaker for numerous meeting and workshops in both U.S. and China. Her research in the past two years is primarily funded by the CDC, EPA, NIEHS, the U.S. Department of State, and N.J. Department of Environmental Protection.

Grippo, Richard

Arkansas State University

Dr. Richard S. Grippo is a Professor of Environmental Biology at Arkansas State University (ASU) in the Department of Biological Sciences. He has received over $2,000,000 in competitive research funding in the areas of biomonitoring, bioassessment and ecological risk assessment. Dr. Grippo's research funding over the past two years has been supported by grants from and contracts with both government agencies and private companies, with core research support primarily being from the federal government (National Science Foundation) and contractual sources of funding from a private consulting firm (EnSafe, Inc. Memphis, TN). His primary research focus is on the environmental effects of fossil fuel extraction on aquatic and marine organisms. Recent funded research includes evaluating stream bank restoration on cattle ranches (U.S. Environmental Protection Agency (EPA)), efficacy of Best Management Practices on adjacent streams following clear-cut silviculture (US EPA and Arkansas Forestry Commission), environmental impact of an aquaculture therapeutant (U.S. Department of Agriculture), factors affecting migratory bird collisions with communication towers (U.S. Fish and Wildlife Service, and AR Game and Fish Commission), the effects of oil spill dispersants on estuarine fish physiology (Arkansas State University), the effect of the BP oil spill on food resources of shorebirds, especially the Black Skimmer (National Science Foundation (NSF) REU), and Planning Grant for the Harp Environmental Field Station (NSF). In 2006 he was the recipient of the ASU Environmental Sciences Faculty Research Award.

Dr. Grippo has performed environmental assessments and reviews as a consultant on numerous industrial projects, including Mississippi River harbor enlargements in MO; environmental assessments of stream widening, irrigation lake construction (Grand Prairie Project), and a new I-40 interchange construction, in AR. Most recently he is consulting on the environmental impact assessment of the proposed Southern Gateway project (construction of a third Mississippi River bridge at Memphis, TN). He currently teaches 11 lecture and laboratory/field courses including Case Studies in Ecosystem Management, Environmental Systems Analysis (computer modeling), Environmental Biology, Legal Aspects of Environmental Management, Field Experiences in Marine Systems (in Belize, Central America), Environmental Toxicology: Mechanisms and Impacts, Pharmacology, Marine Biology, Marine Mammals, and Biology of Sex. In 2014 he was the recipient of the Arkansas State University Chancellor's Award for Excellence in Teaching. He earned a B.S. in Tropical Marine Biology and an M.S. in Marine Ecology, both from Fairleigh Dickinson University at Madison, NJ. He earned a Ph.D. in Ecology with a minor in Statistics from The Pennsylvania State University, where he studied the physiological effects of acid mine drainage and acid rain on aquatic organisms. While a graduate student he supplied scientific support to the class action litigation associated with the Exxon Valdez oil spill at field sites in Prince William Sound, lower Cook Inlet, and Kodiak Island, Alaska. He was awarded the Homeyer Graduate Fellowship Award for Outstanding Senior Graduate Student at Penn State in 1991. He has served on the Arkansas Governor's Task Force on In-stream Gravel Mining and chaired the committee that developed the successful proposal for the first Ph.D. program at Arkansas State University, in Environmental Science. He has served on the Meetings Committee and three Meeting Organizational Committees for the Society of Environmental Toxicology and Chemistry. He is past president of the Mid-South Chapter of SETAC and currently serves as the chairman of the Environmental Committee of the Arkansas Chapter of the American Fisheries Society, and on the National Ecological Observatory Network (NEON) – Domain Science & Education Coordination Committee. He is co-director of the George L. Harp Environmental Field Station on the Buffalo National River, AR; and the Bearitage Biological Field Station, Cherry Valley, AR.

Harkema, Jack

Michigan State University

Dr. Jack R. Harkema, DVM, Ph.D., DACVP, is a University Distinguished Professor at Michigan State University in East Lansing, MI. Dr. Harkema received a DVM (veterinary medicine) from Michigan State University (MSU) and a Ph.D. (comparative pathology) from the University of California, Davis (UCD). After completing a National Institutes of Health (NIH)-sponsored research/residency training program in comparative pathology and toxicology at the UCD, Dr. Harkema joined the scientific staff of the Lovelace Inhalation Toxicology Research Institute in Albuquerque, NM in 1985 as an experimental and toxicologic pathologist. He later became the institute's project manager for pathogenesis research. In 1994, Dr. Harkema joined the faculty of the Department of Pathobiology and Diagnostic Investigation in the College of Veterinary Medicine at MSU. His primary research is designed to understand the pathobiology and toxicology underlying the health effects of outdoor and indoor air pollutants. In 2011, he became the director of the Great Lakes Air Center for Integrated Environmental Research, one of four U.S. Environmental Protection Agency (EPA)-funded Clean Air Research Centers in the nation. Dr. Harkema has authored or co-authored over 220 peer-reviewed scientific publications and has served on several scientific advisory committees, including those for the National Institute of Environmental Health Sciences (NIEHS), the National Toxicology Program, the EPA, and the National Academy of Sciences. Besides training graduate students, residents, and postdoctoral fellows in biomedical research, Dr. Harkema also moderates didactic courses in advanced general pathology, integrative toxicology, and pulmonary pathobiology. Dr. Harkema is a diplomate of the American College of Veterinary Pathologists (by examination) and a member of the Society of Toxicologic Pathologists, the Society of Toxicology, and the American Thoracic Society. He currently receives research funding through grants or contracts from a variety of sources including the EPA to explore and elucidate the health effects of multipollutant atmospheres in the Great Lakes region, the American Chemistry Council to study the nasal pathology and toxicology of inhaled olefin compounds, and the NIEHS/National Institutes of Health to identify the molecular mechanisms underlying toxicity of dioxin-like compounds.

Hopke, Philip K.

Clarkson University

Dr. Philip K. Hopke is the Bayard D. Clarkson Distinguished Professor at Clarkson University, the Director of the Center for Air Resources Engineering and Science (CARES), and the Director of the Institute for a Sustainable Environment (ISE). He holds a B.S. in Chemistry from Trinity College, Hartford, CT , and an M.A. and Ph.D. in Chemistry from Princeton University. Dr. Hopke is the past Chair of U.S. Environmental Protection Agency (EPA)'s Clean Air Scientific Advisory Committee (CASAC), and has served on the EPA Science Advisory Board (SAB) Professor Hopke is a Past President of the American Association for Aerosol Research (AAAR), and was a member of the more than a dozen National Research Council committees. He currently serves on the NRC's Board of Environmental Studies and Toxicology. He is a fellow of the International Aerosol Research Assembly, the American Association for the Advancement of Science and the American Association for Aerosol Research. He is an elected member of the International Statistics Institute and the recipient of the Eastern Analytical Symposium Award in Chemometrics and the Lifetime Achievement Award of the Chemometrics in Analytical Chemistry Conference. Dr. Hopke is also a recipient of the David Sinclair Award of the AAAR. He served as a Jefferson Science Fellow at the U.S. Department of State during the 2008-09 academic year. After a post-doctoral appointment at the Massachusetts Institute of Technology and four years as an assistant professor at the State University College at Fredonia, NY, Dr. Hopke joined the University of Illinois at Urbana-Champaign, rising to the rank of professor of environmental chemistry, and subsequently came to Clarkson in 1989 as the first Robert A. Plane Professor with a principal appointment in the Department of Chemistry. He moved his principal appointment to the Department of Chemical and Biomolecular Engineering in 2000. Since 2002, Dr. Hopke has been the Clarkson Professor and Director of CARES. Dr. Hopke's research has been supported by grants from both government agencies and private companies, with core grant research support primarily being from the federal government (U.S. Environmental Protection Agency, U.S. Department of Energy, and the National Science Foundation) with additional grant support from state (NYSERDA) and local governments, industry, and foundations. His current EPA funding is the Great Lakes Fish Monitoring and Surveillance Program that examines the presence of legacy and emerging contaminants in Great Lakes fish. He has multiple contracts with NYSERDA to examine aspects of the use of high efficiency, low emissions wood pellet boilers. On July 1, 2010, he took on the directorship of the ISE that houses Clarkson's undergraduate and graduate environmental science degree programs as well as managing Clarkson's sustainability initiatives.

Horvath, Arpad

University of California, Berkeley

Dr. Arpad Horvath is a Professor of Civil and Environmental Engineering at the University of California, Berkeley. He heads the Energy, Civil Infrastructure and Climate graduate program. He is the Director of UC Berkeley's Transportation Sustainability Research Center as well as the Engineering and Business for Sustainability Certificate Program. His Ph.D. degree in Civil and Environmental Engineering is from Carnegie Mellon University. His research focuses on life-cycle environmental and economic assessment of products, processes, and services, particularly of engineered systems, civil infrastructure systems, and the built environment. He is Associate Editor of the Journal of Infrastructure Systems, and is on the Editorial Boards of Environmental Science & Technology, Environmental Research Letters, and the Journal of Industrial Ecology. Dr. Horvath was Conference Chair of the 6th International Conference on Industrial Ecology in 2011. He is a recipient of the American Society of Civil Engineers' Walter L. Huber Civil Engineering Research Prize, the Laudise Prize "for outstanding achievements in industrial ecology by a young scientist or engineer" of the International Society for Industrial Ecology, the Excellence in Review Award from Environmental Science & Technology, and the National Science Foundation (NSF) CAREER award. Three of his co-authored papers were among the top three policy or feature papers in Environmental Science & Technology in 2008, 2011 and 2012. Dr. Horvath's research is currently supported by the NSF Engineering Research Center: Reinventing the Nation's Urban Water Infrastructure (ReNUWIt); the California Air Resources Board to research drop-in biofuels; and Henry H. Wheeler, Jr. to support researching the environmental footprint of products and processes.

Jiang, Weiling

California Environmental Protection Agency

Dr. Welling Jiang is a permanent Research Scientist at California Environmental Protection Agency (Cal/EPA), Department of Pesticide Regulation. His research interests include environmental fate, toxicity and human exposure to organic contaminants, and risk mitigations. Over the past two years Dr. Jiang received research funding from government agencies and lead several field studies to assess ecological and health risks of pesticides. Dr. Jiang's publications include journal articles, book, and governmental reports. He has been invited to review around 40 times for journals including *Environ. Sci. Technol., J. Hydrol., J. Agric. Food Chem., Environ. Pollut., J. Environ., Qual.*, etc. He also served on the review panels for National Geographic Air and Water Conservation Fund, Pest Management Alliance Fund, and Society of Environmental Toxicology and Chemistry (SETAC)-ACS Exchange Award. Dr. Jiang received his Ph.D. in Environmental Sciences from University of California, Riverside. His Ph.D. work is on fate and transport of pesticides in urban environment. He received his B.S. in Environmental Science from Nanjing University, China. Dr. Jiang has been serving in SETAC Human Health Risk Assessment Advisory Group, and was board member of Southern California SETAC in 2010-2012 and meeting committee member of North America SETAC in 2008-2014.

Johnston, Robert J.

Clark University

Dr. Robert J. Johnston is Director of the George Perkins Marsh Institute and Professor of Economics at Clark University. He received a B.A. in Economics from Williams College and a Ph.D. in Environmental and Natural Resource Economics from the University of Rhode Island. Dr. Johnston's research addresses methodology for nonmarket valuation, benefit cost analysis, benefit transfer, and analysis of ecosystem services, with an emphasis on aquatic, riparian and coastal systems. He has also conducted significant work in natural resource and fisheries economics. Much of his work coordinates methods and data from environmental economics with those of other natural and social sciences, seeking to enhance interdisciplinary collaborations for policy analysis. His work has been funded by numerous agencies including the U.S. Environmental Protection Agency (EPA), National Science Foundation, US Department of Agriculture, National Oceanic and Atmospheric Administration (NOAA, including Sea Grant and the National Estuarine Research Reserve System), US Department of Transportation, and Environment Canada. Among other current appointments, he is on the EPA Chartered Science Advisory Board, the Ecosystem Science and Management Working Group of the NOAA Scientific Advisory Board, the Management Committee of the Narragansett Bay National Estuary Program, the Senior Advisory Board of the Connecticut Sea Grant Program, the Program Advisory Council of the New York Sea Grant Program, and the Program Committee for the Charles Darwin Foundation. He has served on numerous National Research Council, EPA, NOAA and other federal agency committees and science advisory workshops, most recently addressing such topics as the effectiveness of stock rebuilding under the Fishery Conservation and Management Reauthorization Act, valuation of ecosystem services within federal agencies, economic benefits of electric utility regulations, indicators of ecosystem services for wetlands and estuaries, indicators of ecosystem services for freshwater streams, ecosystem research within NOAA, and science for valuation of EPA's ecological protection decisions and programs.

Landis, Wayne

Western Washington University

Dr. Wayne Landis is Professor and Director, Institute of Environmental Toxicology Huxley College of the Environment, Western Washington University. He holds a B.A. in Biology from Wake Forest University, an M.A. in Biology from Indiana University, and a Ph.D. in Zoology from Indiana University. Dr. Landis' areas of expertise and research activities include: environmental toxicology, the effects of toxicants on populations, and ecological risk assessment at large spatial and temporal scales. His research contributions also include: co-development of the Community Conditioning Hypothesis, the use of multivariate analysis in microcosm data analysis, creation of the Action at a Distance Hypothesis for landscape toxicology, the application of complex systems theory to risk assessment, and development of the Relative Risk Model for multiple stressor and regional-scale risk assessment and specialized methods for calculating risk due to invasive species and emergent diseases. Dr. Landis has authored over 150 peer-reviewed publications and government technical reports, made over 235 scientific presentations, edited four books, and wrote the textbook, Introduction to Environmental Toxicology, now in its fourth edition. He has consulted for industry; nongovernmental organizations as well as federal (U.S. and Canada), state, provincial, and local governments. Dr. Landis' research has been supported by grants and contracts from federal agencies (U.S. Air Force, Environmental Protection Agency, U.S. Forest Service,), industry (DuPont, and Teckcominco Ltd.), with additional grant support from state, provincial and local governments, industry, NGOs and foundations. Dr. Landis has served on the American Society of Testing and Materials (ASTM) Committee on Publications overseeing a variety of environmentally related symposia proceedings. He currently serves on the editorial boards of the journals Human and Ecological Risk Assessment and Integrated Environmental Assessment and Management, and just retired as the ecological risk area editor for Risk Analysis. Dr. Landis is a member of the Society of Environmental Toxicology and Chemistry (SETAC) and served on the SETAC Board of Directors from 2000-2003. In 2007 he was named a Fellow of the Society for Risk Analysis. He has just been selected for his second term on the Science Panel of the Puget Sound Partnership, a state of Washington agency charged with the restoration of Puget Sound.

Langen, Thomas A.

Clarkson University

Dr. Thomas A. Langen conducts research on the environmental impact of roads, on the effectiveness of public-private partnerships for wetland restoration, and on habitat management and conservation of birds and other animals. He holds a B.S. in Biology from Purdue University, and a Ph.D. in Biology from the University of California, San Diego. Dr. Langen's road-related research has included the impacts of winter road management on roadside vegetation and lakes in the Adirondack Park, predictive modeling of hotspots of road mortality of amphibians and reptiles, design and functioning of wildlife barriers and passageways for turtles, and the impact of highways on habitat connectivity in Costa Rican National Parks. He leads professional development workshops in Latin America and North America on the environmental impact of roads and other infrastructure. Dr. Langen's wetland research focuses on the environmental, economic, and social benefits and costs of wetland restoration to private landowners. His research on habitat management in birds focuses on cooperative projects between land-owners and conservationists for threatened species such as the golden-winged warbler or spruce grouse. Dr. Langen's teaching interests include how to best apply problem-based learning and inquiry approaches to improve teaching in ecology and conservation biology, using publically-available 'big data' including citizen science data for undergraduate teaching and research, and how to design undergraduate summer research internship programs to best achieve program objectives. Dr. Langen's research funding over the past two years has been supported by grants from federal and state agencies, foundations, and the National Science Foundation.

Larson, Timothy

University of Washington

Dr. Timothy Larson is a Professor in the Department of Civil and Environmental Engineering at the University of Washington. He is also a Professor in the Department of Occupational and Environmental Health Sciences at the University of Washington. Dr. Larson holds a B.S. in Chemical Engineering from Lehigh University, and an M.S.Ch.E. and Ph.D. from the University of Washington. Dr. Larson is a member of the Air and Waste Management Association, the International Society of Exposure Sciences, and the International Society of Environmental Epidemiology. His expertise is in characterization of urban air pollution, exposure assessment of airborne particles and gases, and source/receptor relationships of ambient air pollutants. Dr. Larson major focus in recent years has been on assessment of human exposure to outdoor generated air pollutants. Dr. Larson has previous served as a member of U.S. Environmental Protection Agency (EPA)'s Advisory Council on Clean Air Compliance Analysis (COUNCIL) and EPA's advisory committee on Indoor Air Quality/Total Human Exposure. In addition, he served on the EPA Science Advisory Board as a member of the Health and Ecological Effects Subcommittee and the Air Quality Modeling Subcommittee. Dr. Larson's research has been supported by grants from both government agencies and private companies, with core grant research support primarily being from the federal, state and local government (U.S. Environmental Protection Agency, National Science Foundation, National Institutes of Health, National Institute of Environmental Health Sciences, Washington State Department of Ecology, and Puget Sound Clean Air Agency) with additional grant support from state and local governments, industry, and foundations.

Lee, Cindy M.

Clemson University

Dr. Cindy M. Lee is a Professor of Environmental Engineering and Earth Sciences and of Environmental Toxicology at Clemson University. She holds a B.A. in English from Indiana University (1977), a B.A. in Geology and Chemistry from University of Colorado (1984), and a Ph.D. in Geochemistry from the Colorado School of Mines (1990). Dr. Lee joined the faculty at Clemson in 1990. Her major teaching and research interests are the chemistry of environmentally significant organic compounds and environmental sustainability. Dr. Lee's specific research interests involve the use of chiral chemistry as a tool for investigating the fate and transport of pesticides, pharmaceuticals, and persistent organic pollutants (POPs) in the environment; the bioremediation of chlorinated contaminants; and the role of black carbon and natural organic matter in the fate of contaminants. Her research has been supported by grants from both government agencies and private companies, with core grant research support primarily being from federal government (National Science Foundation, U.S. Environmental Protection Agency, U.S. Department of Energy, U.S. Army Corps of Engineers), with additional grant support from state and local governments, industry, and foundations. From July 2006 to July 2007, Dr. Lee served at the National Science Foundation as the founding Program Director of the Environmental Sustainability Program in the Division of Chemical, Bioengineering, Environmental and Transport Systems (CBET), Directorate of Engineering. Dr. Lee has a national perspective on engineering and science research and research needs in environmental sustainability. She served as a member of the Energy and Environment Coordinating Group for development of the National Aeronautical Research and Development Plan under the auspices of the Office of Science and Technology Policy (OSTP). Dr. Lee participated on the Feedstocks Task Force of the U. S. Department of Energy's Biofuels Action Plan.

Lewinski, Nastassja

Virginia Commonwealth University

Dr. Nastassja Lewinski is currently an Assistant Professor of Chemical and Life Science Engineering at Virginia Commonwealth University. She holds a Ph.D. in Bioengineering and a B.S. in Chemical Engineering from Rice University. Dr. Lewinski has focused her career on integrating biological and environmental compatibility into the design process of engineered nanomaterials. Her research interests include nanotoxicology, sustainable nanotechnology, comparative in vitro/in vivo analyses, and aerosol drug delivery. Before joining VCU in 2014, she conducted postdoctoral research examining the health implications of occupational exposure to nanoparticle aerosols at the Institute for Work and Health in Lausanne, Switzerland. Her projects over the past three years were supported through private foundation grants awarded by the Leenaards Foundation, where she served as Principal Investigator, and the Whitaker International Program. Dr. Lewinski has authored and co-authored several peer-reviewed publications, including work in aquatic toxicology published in Environmental Science and Technology and Nanoscale. She currently has no federal research funding.

Lungu, Claudiu

University of Alabama at Birmingham

Dr. Claudiu T. Lungu is an Associate Professor in the Department of Environmental Health Sciences, in the School of Public Health and Mechanical Engineering (secondary) at the University of Alabama at Birmingham and the Director of the Deep South Center for Occupational Health and Safety (T42), a National Institute of Occupational Safety and Health (NIOSH) funded Education and Research Center. Dr. Lungu holds a B.S. in Physics and an M.S. in Nuclear Materials' Engineering from the University of Bucharest, Romania, and an M.S. in Physics and a Ph.D. in Environmental Health Sciences (Industrial Hygiene track) from the University of South Carolina. Dr. Lungu is a scientist with physics, engineering and environmental health background his broad research area is the development of methods for the measurement, characterization and control of occupational and environmental air pollution exposures. Presently, his research focusses on the development of new air sampling and analysis methods for Volatile Organic Compounds (VOC) using photo-thermal desorption from carbon nanotube-based samplers and evaluation and modeling of VOC emissions from building materials and other indoor sources to determine indoor air quality. In the past Dr. Lungu served on the NIH, Small Business Innovation Research study section, has been part of the CDC/NIOSH site visit workgroup and Special Emphases Panel/Scientific Review Group. He is a past president of the Ionizing Radiation Committee of the AIHA and is active on various other committees, such as the International Affairs Committee and the Academic Special Interest Group. Dr. Lungu was the recipient of the AIHA Leadership Award. He also received the UAB Graduate School Dean's Award for Excellence in Mentorship and was nominated as one of the "101 Most Influential Professors of Public Health 2012" by MPHProgramsList.com. Dr. Lungu's main research funding over the past two years has been supported by the Centers for Disease Control through NIOSH (PI for the T42 Deep South Center, and PI for an R21). Additional research grant support was received from the National Institute of Environmental Health Sciences and internally from UAB and the School of Public Health.

Luster, Michael I.

West Virginia University

Dr. Michael I. Luster is currently a part-time Research Professor in the Department of Occupation and Environmental Health, School of Public Health at West Virginia University (WVU) and a private consultant in toxicology. Dr. Luster holds a B.A. in Biology from the University of Massachusetts, and an M.A. and Ph.D. in Microbiology from Loyola University of Chicago. He retired as Chief of the Toxicology and Molecular Biology Branch at National Institute for Occupational Safety and Health (NIOSH) in 2006 and prior to joining NIOSH in 1996, served as Head of the Environmental Immunology and Neurobiology Section at the National Institute of Environmental Health Sciences, National Institutes of Health (NIH) in Research Triangle Park, North Carolina. Dr. Luster has co-authored over 360 publications, holds several U.S. Patents and has co-edited 10 books in the area of Immunotoxicology. He is a recipient of the NIH Award of Merit, the Alice Hamilton Award for excellence in occupational safety and health research and the Frank Blood Award from the Society of Toxicology. Dr. Luster has served on the Editorial Board of numerous journals during his career including the Journal of Immunology, Environmental Health Perspectives, Journal of Immunotoxicology, Food and Chemical Toxicology and Toxicology & Appl. Pharmacology and has served as a member or an ad-hoc member of the Scientific Advisory Boards for the U.S. Environmental Protection Agency (EPA), U.S. Food and Drug Administration (FDA) and Consumer Product Safety Commission (CPSC) as well as on advisory committees for the World Health Organization (WHO), International Life Sciences Institute (ILSI)/Health and Environmental Sciences Institute (HESI), National Academy of Sciences and World Resource Institute on issues related to immunotoxicology. He is currently a full-time member of the SAB for the EPA Scientific and Technological Achievement Awards (STAA) program. His current research at WVU is focused on development of screening methods to identify environmental obesogens that act via peroxisome proliferator receptors and is supported by grants from the NIH.

Mayer, Audrey

Michigan Technological University

Dr. Audrey Mayer is an Associate Professor of Ecology and Environmental Policy at Michigan Technological University, with a joint appointment between the School of Forest Resources and Environmental Science and the Department of Social Sciences. She has a Ph.D. in Ecology and Evolutionary Biology from the University of Tennessee, and wrote her dissertation on the conservation of the Cape Sable Seaside sparrow in Everglades National Park. Her areas of expertise include landscape ecology, sustainability science and environmental policy, and her current research focus areas include land use change, bioenergy from woody biomass, and sustainability assessment. Her work on sustainability science began in 2001 as a postdoctoral researcher (and then an ecologist) at the U.S. Environmental Protection Agency's Office of Research and Development lab in Cincinnati, OH. She and her team received two EPA Scientific and Technological Achievement Awards (STAA) awards for this work. At present, she is the chair of the Policy Committee for the U.S. Regional chapter of the International Association for Landscape Ecology, and she served as a Councilor-At-Large for that society from 2012-2014. She is also a curriculum technical advisor for the Association for the Advancement of Sustainability in Higher Education's STARS rating program. She serves on the editorial board of two journals: Landscape and Urban Planning, and Sustainability. Dr. Mayer's research funding over the past two years has been primarily supported by grants from the (US) National Science Foundation, but she has also received funding from the U.S. Department of Agriculture, and the Swedish Research Council.

McCray, John E.

Colorado School of Mines

Dr. John E. McCray is a Professor and Head of the Civil and Environmental Engineering Department at the Colorado School of Mines. Dr. McCray received a B.S. in Electrical Engineering from West Virginia University, an M.S. in Environmental Systems Engineering from Clemson University, and Ph.D. in Hydrology and Water Resources from University of Arizona, with a minor in Soil Water and Environmental Science. Professor McCray was the founding director of the interdisciplinary Hydrologic Science and Engineering graduate degree program at Mines. Dr. McCray's teaching focus is on fate and transport of chemicals in environmental systems (air and water), watershed hydrology and water quality, and urban water reclamation. Current research projects include watershed-scale changes in water quantity and water quality under the influence of fire, insect infestation and climate change; use of hybrid natural-engineered systems for reclamation of recycled water and storm water - including addressing legal and policy barriers to technology implementation; groundwater contaminant transport and risks associated with shale-gas production; environmental risks of carbon geosequestration; and *in situ* biogeochemical conversion of unusable heavy crude oils to natural gas. He is currently one of 4 Principal Investigators for the multi-institution NSF Engineering Research Center for Reinventing America's Urban Water Infrastructure (ReNUWIt.org), and is Deputy Director of the Center for Sustainable Water and Energy Education and Science and Technology (WE^2ST) at Mines. Dr. McCray has published more than 70 peer-reviewed papers and book chapters. He has served as PI for more than $20 MM in grants. Core research support over the last 2 years has been provided primarily by the federal government, including the U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), U.S. Department of Defense, U.S. Geological Survey, and the National Science Foundation (NSF), with some research support from private industry. He has served on many expert panels, including being the sole engineering expert on an EPA Panel for Financial Responsibility of Geologic Carbon Sequestration, and a 3-person panel to evaluate the hydrologic infiltration model for DOE's Yucca Mountain project. He has served on proposal review panels for two different DOE subsurface remediation programs and the NSF Environmental Sustainability program. He was recently honored as a Fulbright Scholar to Chile for evaluation of water resources under competing uses, the Shimizu Visiting Professor of Civil & Environmental Engineering at Stanford University, winner of the 2013 American Society of Civil Engineers (ASCE) Rudolph Hering medal for top paper in environmental engineering, and Chair of the ASCE National Groundwater Quality Committee. He has also served as Associate Editor for top journals, including *Water Resources Research*, *Ground Water*, *Jour. of Contaminant Hydrology*, *Journal of American Water Resources Assoc.*, and was 2003 associate editor of the year for *Vadose Zone Journal.*

McDonald, Jacob D.

Lovelace Respiratory Research Institute

Dr. Jacob D. McDonald is the Vice President of the Applied Sciences division at the Lovelace Respiratory Research Institute in Albuquerque, NM. The Applied Sciences division studies environmental/occupational hazards, bioaerosols, toxins, radionuclide exposure, chemical threat agents, and new therapeutics, and includes key functional areas of chemistry (analytical/bioanalytical), pharmacokinetics, metabolism, and inhalation toxicology. Dr. McDonald received a B.S. in biology/environmental chemistry from the University of LaVerne (CA) and a Ph.D. in environmental chemistry and toxicology from the University of Nevada. He collaborates with biotechnology and pharmaceutical researchers to develop products through proof-of-concept and to market. This includes characterization of dosimetry in animals and humans, assessment of pharmacokinetics and pharmacodynamics in animal models, and intervention studies in animal models of disease and injury. Dr. McDonald has an interest in drug development and have worked for the past 10 years in drug development applied to pulmonary diseases. He also has experience and interests in metabolism/biomarker development and aerosol delivery/toxicology. Dr. McDonald's role at the Lovelace Respiratory Research Institute includes both academic and commercial contract work with partners from the biotechnology industry. My group has overseen the Lovelace Respiratory Research Institute commercial partnerships for screening of fibrosis compounds in the bleomycin model and has presented that research when not proprietary. Dr McDonald's research funding over the past two years has been primarily supported by grants from and contracts with both government agencies and private companies, with core research support being from the federal government (U.S. Environmental Protection Agency), with additional grant support from state and local governments, industry, and foundations.

MacNair, Douglas

Environmental Resources Management, Inc.

Dr. Douglas MacNair is a Technical Director with the Environmental Resources Management, Inc. Economics and Decision Sciences practice. He is based in Raleigh, North Carolina and has 30 years of experience in the field of economics and decision sciences. Dr. MacNair holds a B.A. in American History from SUC at Fredonia, NY, an M.A. in Economics from the State University of New York, Binghamton, NY, and a Ph.D. in Resource Economics from North Carolina State University. He specializes in helping clients value environmental and natural resource services in their decision making by using quantitative decision support tools. These tools provide a systematic, transparent process for incorporating risk, uncertainty, and multiple environmental, social, and financial objectives in natural resource management decisions. These types of projects include: remedial spending, capital budgeting, watershed protection, land-use planning, water resources, and worker health and safety. Dr. MacNair has facilitated over 100 workshops and focus groups of corporate staff, stakeholders, and the general public. These sessions typically involve developing a shared understanding of the value of environmental and social impacts for evaluating alternative management decisions. He is also an expert in survey design and the statistical analysis of survey results. Dr. MacNair also specializes in litigation support. He has managed numerous natural resource damage assessments for oil and gas companies and manufacturing companies. He has prepared expert reports on residential property diminution, ecological damage assessments and unjust enrichment. His research has been published in journals such as Land Economics, Forest Economics, and Marine Resource Economics. Dr. MacNair's work over the past two years has involved projects for Honeywell, BP, and the Frenchman's Bay Partnership. He has received no external research grants nor has any research contracts from either government agencies, private companies, or foundations.

Mihelcic, James R.

University of South Florida (Tampa)

Dr. James R. Mihelcic is a State of Florida 21st Century World Class Scholar and Professor of Civil and Environmental Engineering at the University of South Florida (Tampa). He holds a B.S. in Environmental Engineering from Pennsylvania State University, and an M.S. and Ph.D. in Civil Engineering from Carnegie Mellon University. His research interests are centered around sustainability, specifically understanding how global stressors such as population, urbanization, climate, land use changes, and nutrient loadings impact water resources, water quality, and deployment of technology for water treatment, wastewater treatment, and water reuse. He also has expertise on the chemical and /biological transformation and treatment of pollutants in natural and engineered systems. Dr. Mihelcic is an internationalized recognized expert on provision of water, sanitation, and hygiene (WASH) in the developing world and directs the Peace Corps Master's International Program in Civil & Environmental Engineering at the University of South Florida (http://cee.eng.usf.edu/peacecorps). He is a past president of the Association of Environmental Engineering and Science Professors (AEESP), a Board Certified Environmental Engineering Member, and Board Trustee with the American Academy of Environmental Engineers & Scientists (AAEES). He is lead author for 3 textbooks: Fundamentals of Environmental Engineering (John Wiley & Sons); Field Guide in Environmental Engineering for Development Workers: Water, Sanitation, Indoor Air (ASCE Press); and, Environmental Engineering: Fundamentals, Sustainability, Design (John Wiley & Sons). Dr. Mihelcic's research and education initiatives have been supported by several competitive grants from the National Science Foundation to determine geographically and culturally appropriate methods to recover water, energy, and nutrients from wastewater, achieve sustainable water and transportation infrastructure at the water-energy-global nexus, and, model the use, efficiency, and value of water as a material. He also completed a research project for the Water Reuse Foundation to assess models to estimate greenhouse gas emissions and the carbon footprint of water reuse and desalination facilities. He recently received competitive funding from U.S. Environmental Protection Agency to establish a National Research Center to conduct water research and demonstration projects that are innovative and sustainable using a systems approach for nutrient management in the Nation's waters.

Murphy, Eileen

Rutgers University

Dr. Eileen Murphy is the Director of Research Development at the Office of Research and Economic Development at Rutgers University. She holds a Ph.D. in Environmental Science from Rutgers University, an M.S. in Outdoor Education from Northern Illinois University, and a B.S. in English with a minor in Biology from the University of Notre Dame. Dr. Murphy coordinates multi-disciplinary research projects in pharmacology, toxicology, communication, environmental science, engineering and other disciplines at the university. Her research interests include occurrence, fate and transport of pharmaceuticals and other anthropogenically-derived organic chemicals in the environment with a particular research emphasis on exposures to toxic substances, fate and transport of toxic substances and assessments of the potential risks to human health and the environment posed by these exposures. Prior to holding this position, Dr. Murphy served as the Director and Assistant Director of the New Jersey Department of Environmental Protection (NJDEP) Division of Science, Research and Technology for eight years and served as a research scientist for 15 years before that within the group, developing an expertise in the drinking water field. Dr. Murphy has focused much of her career on drinking water science, including contaminant occurrence and fate & transport. She has been involved in the issue of unregulated contaminants in drinking water and the treatment to remove them from finished water. Dr. Murphy is co-author on numerous peer-reviewed scientific papers that have appeared in scholarly journals, including Environmental Science and Technology. Her research has been conducted without the support of grants from either federal government agencies or private companies, and her current position is not grant funded.

Olmstead, Sheila M.

The University of Texas at Austin

Dr. Sheila Olmstead is an Associate Professor at the Lyndon B. Johnson School of Public Affairs, University of Texas at Austin, and a Visiting Fellow at Resources for the Future (RFF) in Washington, DC. Before joining the University of Texas in 2013, Dr. Olmstead was a Senior Fellow (2013) and Fellow (2010-2013) at RFF, as well as Associate Professor (2007-2010) and Assistant Professor (2002-2007) of Environmental Economics at the Yale University School of Forestry and Environmental Studies. Olmstead is an environmental economist whose current research projects examine the environmental externalities associated with shale gas development in the United States, regulatory avoidance under the U.S. Safe Drinking Water Act, the influence of federal fire suppression policy on land development in the American West, and free-riding in dam placement and water withdrawals in international river basins. She has worked extensively on the economics of water resource management, focusing on water demand estimation and water conservation policy. Climate and energy policy are additional topics of her research, especially with regard to the application of market-based environmental policy instruments. Dr. Olmstead's research has been published in leading journals such as the *Journal of Economic Perspectives*, *Proceedings of the National Academy of Sciences*, *Journal of Business and Economic Statistics*, *Journal of Environmental Economics and Management*, and *Water Resources Research*. With Nathaniel Keohane, she is the author of the 2007 book *Markets and the Environment.* She is an Associate Editor at *Water Resources Research*, co-Editor at *Environmental and Resource Economics*, Book Review Editor at *Water Economics and Policy*, and on the Editorial Council of the *Journal of the Association of Environmental and Resource Economists*. Dr. Olmstead is also Deputy Director of the Center for Reinventing Aging Infrastructure for Nutrient Management, and a former Board Member of the Association of Environmental and Resource Economists. Her recent research has been funded by the U.S. Environmental Protection Agency, U.S. Department of Agriculture, U.S. Department of Energy, Alfred P. Sloan Foundation, World Bank, and Property Environment Research Center. Dr. Olmstead holds a Ph.D. from Harvard University's John F. Kennedy School of Government, a Masters in Public Affairs from the Lyndon B. Johnson School of Public Affairs, University of Texas, Austin, and a B.A. from the University of Virginia.

Olson, Mira

Drexel University

Dr. Mira Olson is an Associate Professor in the Civil, Architectural and Environmental Engineering Department at Drexel University. She holds a B.S in Mechanical Engineering and B.A. in Environmental Sciences and Engineering from Rice University, and an M.E. and Ph.D. in Civil (Environmental) Engineering from the University of Virginia. The broad focus of her research is on protecting source water quality, including remediation of contaminated ground water, assessing the impact of water resources technologies on source water supply and quality, and the fate and transport of both chemical and biological agents in the environment. Dr. Olson's research has been funding by the National Science Foundation (NSF), the Water Environment Research Foundation (WERF), the United States Geological Survey (USGS), the United States Department of Agriculture (USDA), as well as local utilities and foundations. Dr. Olson is Past Chair of the Groundwater Quality Committee, of the American Society of Civil Engineers (ASCE) Environmental and Water Resources Institute (EWRI), and is a member of the American Geophysical Union (AGU) and the Association of Environmental Engineering and Science Professors (AEESP).

Pagilla, Krishna

Illinois Institute of Technology

Dr. Krishna Pagilla is a Professor of Environmental Engineering at the Illinois Institute of Technology, Chicago, Illinois. Dr. Pagilla has a B.E. from the Osmania University (India), an M.S. from the University of Oklahoma, and a Ph.D. from the University of California – Berkeley, all in Civil/Environmental Engineering. Dr. Pagilla is a Registered Professional Engineer (PE) in Illinois and California, and Board Certified Environmental Engineer of the American Academy of Environmental Engineers and Scientists (AAEES). He is a member of Water Environment Federation (WEF), International Water Association (IWA), Association of Environmental Engineering and Science Professors (AEESP), American Society of Civil Engineers (ASCE), Engineers without Borders USA (EWB-USA), AAEES, Central States Water Environment Association (CSWEA), and Illinois Water Environment Association (IWEA). Dr. Pagilla's academic focus is on water quality, water/wastewater treatment, and environmental biotechnology. The primary focus of his current research is on energy sustainability in water reclamation; specifically, on biological strategies to reduce oxygen requirements for aerobic processes and enhanced energy production through anaerobic digestion of sludge and waste feedstocks. He researched nutrient pollution control, gaseous emissions from wastewater treatment processes, sludge treatment processes in the past. His research has been funded by municipal utilities, US Environmental Protection Agency, Water Environment Research Foundation, National Science Foundation, and engineering companies. Dr. Pagilla has been a consultant for various public utilities and private companies on wide range of environmental issues. Dr. Pagilla was the President of IWEA (2012-13), is the Vice-Chair of the USA National Committee of IWA, and was committee chair of WEF. He served as an Associate Editor of Water Environment Research and Water Science and Technology. Dr. Pagilla received the Thomas R. Camp Applied Research Award (2013) and Gordon Maskew Fair Distinguished Engineering Educator Award (2013) from WEF. He received Harrison Prescott Eddy Medal for Outstanding Applied Research on Wastewater Principles and Processes (2011) from WEF and the Bill Boyle Outstanding Educator Award (2012) from the CSWEA. Dr. Pagilla is a Fellow of both WEF and IWA.

Parkerton, Thomas

ExxonMobil Biomedical Sciences, Inc.

Dr. Thomas Parkerton joined ExxonMobil Biomedical Sciences, Inc. (EMBSI) as an Ecotoxicologist in 1992. He holds a B.S. in Environmental Science with an emphasis in Environmental Chemistry from Rutgers University and M.S. degrees in Aquatic Biology/Toxicology and Environmental Engineering from North Texas State University and Manhattan College, respectively. He received a Ph.D. in Environmental Science/Exposure Assessment from Rutgers University. Dr. Parkerton's area of expertise is in the development and application of computer models to predict the physio-chemical fate, bioaccumulation, trophic transfer and toxicological effects of chemicals entering the environment. Prior to joining EMBSI, Dr. Parkerton had gained experience in the development of scientifically defensible effluent, water and sediment quality criteria to protect aquatic life, wildlife and human health. Dr. Parkerton has coordinated numerous laboratory-based research programs to support environmental hazard classification and risk assessment of Exxon Mobil products. Other responsibilities have included performing multi-media exposure and environmental risk assessments in support of existing or new regulations. Dr. Parkerton relocated to Brussels in 1998 and served as the European ecotoxicology advisor for four years. In this role, Dr. Parkerton provided technical assistance to Exxon Mobil business units, industry associations and European regulatory agencies on environmental science issues relevant to both products and facility operations. In 2004, Dr. Parkerton became head of the EMBSI environmental sciences section that is headquartered in Annandale, New Jersey. In this position, Dr. Parkerton managed a group of approximately 20 consultants and laboratory staff. Over the next few years, Dr. Parkerton also led industry efforts to develop innovative methods, data and models to comply with the European REACH regulation. In 2011, Dr. Parkerton relocated to Houston Texas to assume a new position as senior environmental technical advisor. In this role, Dr. Parkerton is coordinating EMBSI technical support to its Houston-based clients and is providing expertise in helping EM address a variety of environmental issues. Dr. Parkerton has received no external grants from either government agencies, private companies, or foundations.

Peters, Thomas

University of Iowa

Dr. Thomas Peters is a Certified Industrial Hygienist who develops novel, low-cost sampling methods with the primary intent to understand the spatial and temporal variability of contaminants in the workplace and the environment. He teaches Control of Contaminants and Aerosol Technology within the Occupational and Environmental Health Department of the University of Iowa, and served as the primary research advisor for 3 post-doctoral, 4 Ph.D., and 9 M.S. students. Dr. Peters holds a B.S. and M.S. in Environmental Engineering from the University of Florida, and a Ph.D. in Industrial Hygiene/ Aerosol Physics from The University of North Carolina. He has developed passive sampling techniques to investigate the variability in composition of coarse particles in the atmosphere, hazard mapping and activity monitoring with direct-reading instruments, and a unique sampler to measure nanoparticles apart from larger particles (the nanoparticle respiratory deposition sampler). Dr. Peters was involved in the development of the U.S. Environmental Protection Agency National Ambient Air Quality Standard for particulate matter under 2.5 µm (PM2.5); during this time, he was responsible for developing and testing PM2.5 sampling hardware, conducting field tests, and drafting portions of the Code of Federal Regulations. Dr. Peters' research funding over the past two years has been supported by grants from and contracts with both government agencies and private companies, with core research support primarily being from the federal government (US Air Force), with additional grant support from universities, industry, and foundations including Spectral Energies, University of Minnesota, John Hopkins University, and John Deere Company.

Pinkerton, Kent

University of California, Davis

Dr. Kent Pinkerton is a Professor of the Department of Pediatrics in the School of Medicine and Professor of Anatomy, Physiology and Cell Biology in the School of Veterinary Medicine at the University of California, Davis (UCD). He is also the Director of the Center for Health and the Environment, Associate Director of the Western Center for Agricultural Health and Safety at UC Davis, and former Associate Director of the San Joaquin Valley Aerosol Health Effects Center. Dr. Pinkerton received his B.S. in Microbiology with a minor in Chemistry from Brigham Young University; and his M.S. and Ph.D. in Pathology from Duke University. He was a Research Associate in the Division of Allergy, Critical Care and Respiratory Medicine at Duke University Medical Center in 1982, and he remained at Duke University until 1986 as an Assistant Medical Research Professor in the Department of Pathology. Dr. Pinkerton began teaching at UCD in 1986. Dr. Pinkerton's research has focused on the respiratory system and health. General themes addressed: (1) mechanisms of particulate toxicity, (2) effects of oxidant gases on lung injury and repair, (3) effects of environmental pollutants on lung development and immune responses during perinatal life, (4) mechanisms of tobacco smoke-induced lung inflammation and (5) diet, chemotherapeutic agents and inhibitors of inflammation to reduce tumor risk in an animal model of tobacco-induced lung disease and (5) health effects of engineered nanomaterials. He has published over 220 articles in peer-reviewed, scientific journals, texts, and encyclopedias on those subjects. Dr. Pinkerton has served on numerous advisory committees and other professional societies. In the last fifteen years, he has been involved in leadership positions for two major research centers in air pollution and agricultural health. (1) San Joaquin Valley Aerosol Health Effects Research Center from 2006 until 2011 (one of 5 national PM Centers funded by the United States Environmental Protection Agency (U.S. EPA) and (2) the Western Center for Agricultural Health and Safety (WCAHS) with Marc Schenker from 2001 to the present. He currently serves as the Director for Health and the Environment at UC Davis since 2001, overseeing an annual research budget of more than $5 million with 18 faculty members and 100 staff and students from the Schools of Medicine, Veterinary Medicine, the College of Agriculture and Environmental Sciences and the College of Engineering. On the national level, Dr. Pinkerton has served as Chair for the Environmental and Occupational Health (EOH) assembly and Chair of the Environmental Health Policy Committee for the American Thoracic Society. His community-based endeavors have been to chair and oversee the publication of a workshop on Climate Change and Global Public Health (Pinkerton et al, 2012, PATS). He has been appointed to numerous scientific advisory boards for the U.S. Environmental Protection Agency, the National Institutes of Health, the National Research Council and most recently the International Agency for Research on Cancer (IARC) in Lyon, France. He sits on editorial board for *Inhalation Toxicology* and serves as a reviewer for numerous scientific journals. His research on the perinatal effects of environmental air pollutants on lung growth and development, maturation and aging is found in numerous scientific publications, reports and chapters. Trained as a research pathologist at Duke University Medical Center, he has trained more than 40 graduate students over his career. He has edited and co-authored books on climate change (Global Climate Change and Public Health, 2014), lung development and the environment (The Lung: Development, Aging and the Environment, 2nd Edition, 2015) lung aging (Molecular Aspects of Aging: Understanding Lung Aging, 2014), and comparative respiratory systems (Comparative Biology of the Normal Lung, 2nd Edition, 2015). Dr. Pinkerton's primary sources of research funding for the past two years has been supported by grants from and contracts with both government agencies and private companies, with core research support primarily being from the federal government (NIEHS), with additional grant support from Universities and foundations including Dalian University and the California National Primate Research Center.

Portier, Kenneth

American Cancer Society

Dr. Kenneth M. Portier is Managing Director of the Statistics & Evaluation Center at the American Cancer Society (ACS) home office in Atlanta, GA, and is Affiliate Professor of Biostatistics in the School of Public Health, Emory University. A native of south Louisiana, Dr. Portier holds a B.S. in Mathematics from Nicholls State University in Thibodaux, Louisiana (1973), and an M.S. in Statistics (1975) and Ph.D. in Biostatistics (1979) from the University of North Carolina, Chapel Hill. With ACS since early 2006, he provides general statistical support on design and analysis of cross-sectional and longitudinal sample surveys, program evaluation and cancer modeling. Prior to ACS Dr. Portier spent 27 years as a statistical consultant to researchers in agriculture, natural resources and the environment and as a teacher of applied statistics at the graduate level at the University of Florida. He has coauthored over 150 publications in many of the premier journals in agriculture, natural resources and environmental sciences. Dr. Portier has received national recognition for his teaching and twice participated in U.S. Department of Agriculture (USDA)-funded teaching grants, one on new methods for teaching natural resources sampling and the other to develop a study abroad course in natural resources assessment with the Czech Republic. His collaborations with other researchers at UF resulted in 36 funded research grants from numerous agencies and private companies, with core research support being from the federal government (National Science Foundation (NSF), USDA, U.S. National Oceanic and Atmospheric Administration (NOAA), U.S. Environmental Protection Agency (EPA), and the U.S. Department of the Interior). Dr. Portier continues to collaborate with UF's Center for Environmental and Human Toxicology on statistical questions that arise in environmental sampling and risk assessments. He has participated in over 60 Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) meetings since 1999 and four EPA Science Advisory Board science review panels. In addition, Dr. Portier has served on expert and advisory panels for the National Institutes of Health (NIH), National Institute of Environmental Health Sciences (NIEHS), the National Toxicology Program (NTP), and the World Health Organization Food and Agriculture Organization (WHO/FAO). His research interests are wide, including the application of new statistical methodologies to cancer research and environmental health.

Schwartz, Joel

Harvard School of Public Health

Dr. Joel Schwartz is a Professor in the Departments of Environmental Health and Epidemiology at the Harvard School of Public Health, and Director of the Harvard Center for Risk Analysis. He has been on the faculty at Harvard since 1994. He has served on two National Academy of Sciences panels, on the Health Subcommittee of the U.S. Environmental Protection Agency (EPA's) Board of Scientific Counselors, and was the longest serving member of the CDC's committee on Childhood Lead Poisoning Prevention (1994-2005), and as a member of EPA's Clean Air Scientific Advisory Committee Lead panel. He is a member of the steering committee of Harvard's Center for the Environment. Dr. Schwartz has been the co-director of the Biostatistics core of Harvard's National Institute of Environmental Health Sciences (NIEHS) Center, and the director of the Statistics Core of its Children's Environmental Health Center. His research has focused on health effects of environmental contaminants, including heavy metals, organic chemicals, and air pollution. More recent work has included effects of temperature. Another focus is the use of satellite remote sensing methods and land use regression to estimate exposures all over the planet, and the application of these exposure estimates to epidemiology. Much of his recent work has involved identification of factors conveying susceptibility, including genetic polymorphisms, epigenetic changes, disease status, and social factors, and includes causal mediation analysis. Dr. Schwartz has done much to spread more sophisticated methods to examine the shape of dose-response curves for environmental exposures, including studies of lead and children's IQ in the mid 1990s, and particles and mortality in the 2000's. He has also been involved in studies of effects of heavy metals, including lead, on cognitive function in the elderly. He has over 600 publications in environmental health, including studies of exposure, health effects, biomarkers, and methods. Dr Schwartz holds a BA and a Ph.D. in theoretical physics from Brandeis University, and an MPH from Harvard University. Dr. Schwartz's research funding over the past two years has been supported by grants from and contracts with both government agencies and private companies, with core research support primarily being from the federal government (U.S. National Institutes of Health, EPA), with additional grant support from industry and foundations.

Simcik, Matt F.

University of Minnesota

Dr. Matt F. Simcik is an Associate Professor in the School of Public Health at the University of Minnesota. His background is in chemistry (undergraduate) and civil engineering (graduate). He earned his Ph.D. in Environmental Science from Rutgers University. He is an expert in the fate and transport of organic contaminants, and has 34 peer-reviewed publications to date. He has served as President of the International Association of Great Lakes Research, and as a member of the Board of Directors of the Society of Environmental Toxicology and Chemistry's Midwest Regional Chapter. Dr. Simcik's research funding over the past two years has been supported by grants from and contracts with both public and private organizations and universities, including Legislative-Citizen Commission on Minnesota Resources (LCCMR), the University of Minnesota, and the Department of Defense Strategic Environmental Research and Development Program (SERDP).

Sioutas, Constantinos

University of Southern California

Dr. Constantinos Sioutas, Sc.D., is currently the first holder of the Fred Champion Professorship in Civil and Environmental Engineering at the University of Southern California (USC). Dr Sioutas received his undergraduate education in mechanical engineering at the Aristotle University of Thessaloniki, Greece, and came to the U.S. in the fall of 1986 as a Fulbright Foundation fellow. He received Master of Science degrees in Mechanical Engineering and in Aerospace Engineering, both from the University of Minnesota. He worked as an Advanced Product Development Engineer for 3M for two years prior to continuing his doctoral studies at Harvard School of Public Health in the Department of Environmental Engineering, where he received his Doctor of Science degree in 1994. He started his academic career in 1995 as an Assistant Professor of Aerosol Science at the Harvard, prior to joining the faculty of the University of Southern California (USC) in January 1998. Dr. Sioutas's research has followed an integrated approach to the problem of the well-publicized and significant effects of particulate air pollution on health and the environment. His research has focused on investigations of the underlying mechanisms that produce the health effects associated with exposure to air pollutants generated by a variety of combustion sources, such as traffic (including light and heavy-duty vehicles, natural gas buses, and biodiesel vehicles), harbor and airport operations, power plants, and photochemically induced atmospheric reactions. He has developed many state-of-the-art technologies used by many academic institutions and national laboratories for aerosol sampling and characterization. During his faculty career, he has directed, as either a Principal or Co-Principal Investigator, some 60 research grants exceeding $55 million. He has authored 270 peer-reviewed journal publications, 5 book chapters and holds 13 U.S. patents in the development of instrumentation for aerosol measurement and emissions control. His published work has received over 12,000 citations according to the ISI Web of Science, he is among the top 1% authors worldwide in Engineering according to the Institute of Scientific Information. Results from his publications have been used by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) in their National Air Quality Criteria document in promulgating stricter air quality standards in the U.S. He has advised 20 Ph.D. students, and mentored 18 postdoctoral fellows at USC. Among his many distinctions, he is the recipient of the David Sinclair award for seminal research with the long-term impact in the field of aerosols (the highest distinction of the American Association for Aerosol Research), the Hagen Smit award of Atmospheric Environment for seminal publications, the 2010 Scientific and Technological Achievement Award by the U.S. Environmental Protection Agency, and a trustee of his alma mater (the Aristotle Univ of Thessaloniki). Dr. Sioutas' research funding over the past two years has been supported by grants from and contracts with both national and international government agencies, with core research support primarily being from the federal government (i.e., EPA, National Institutes of Health), with additional grant support from state and local governments (California Air Resources Board, South Coast Air Quality Management District), and international academic institutes and foundations.

Stahl, Ralph

DuPont Company

Dr. Ralph Stahl is a Principal Technical Consultant at the DuPont Company. A native of Houston, Texas, Dr. Stahl received his B.S. in Marine Biology from Texas A&M University (*cum laude*), his M.S. in Biology from Texas A&M University, and his Ph.D. in Environmental Science and Toxicology from the University of Texas, School of Public Health. His M.S. work focused on the fate and effects of PCBs in biota of Galveston Bay, Texas, and his Ph.D. on the environmental effects of coal-fired utilities in Texas. He has participated in a number of oceanographic investigations in the Gulf of Mexico, North Pacific Ocean, and the North Atlantic. After receiving his Ph.D., he was a National Institute of Environmental Health Sciences, Senior Postdoctoral Fellow, in the Dept. of Pathology at the University of Washington in Seattle. Ralph joined the DuPont Company in 1984 and in the intervening years has held both technical and management positions in the research and internal consulting arenas. An environmental toxicologist by training, Ralph has been a member of the Corporate Remediation Group since 1993 where he provides technical and strategic direction on the investigation, remediation and restoration of contaminated sites in the U.S., Latin America, Europe and Asia/ Pacific. Ralph's research over the past 30 years has been supported by funding from DuPont; he has received no external research grants nor has he obtained any research contracts from either government agencies, private companies, or foundations. Ralph has served on the U.S. National Academy of Science / National Research Council Panel on the Use of Ecosystem Services for the Deepwater Horizon Spill in the Gulf of Mexico, the U.S. Environmental Protection Agency's Science Advisory Board (Advisory Council on Clean Air Compliance Analysis, Ecological Effects Subcommittee), and the Department of Interior's FACA Panel on Natural Resource Damages. He is board certified in General Toxicology and is a Diplomate of the American Board of Toxicology. Ralph remains active in the Society of Environmental Toxicology and Chemistry (SETAC), Ecological Risk Assessment Advisory Group and is on the Editorial Board of the journals *Integrated Environmental Assessment and Management*, and *Environmental Toxicology and Chemistry*.

Stinson, Beverly M.

AECOM Americas

Dr. Beverly M. Stinson is a Vice President and the Wastewater Practice Leader for AECOM Americas. She also serves as the Director of Applied Research & Innovation, focusing on developing cutting edge technologies and identifying novel solutions to emerging issues. Dr. Stinson holds a B.Eng. in Engineering from The Queens University, Belfast, Ireland, and a Ph.D. in Engineering from The Queens University, Belfast, Ireland in conjunction with Imperial College London. She has led numerous large municipal wastewater and biosolids master planning programs and conducted extensive research into BNR processes, microconstituents and endocrine disrupter removal processes. Through her professional work experience, Dr. Stinson's has developed extensive technical skills coupled with strong management and planning capabilities. She is currently engaged in some of the most progressive wastewater planning programs in the world including those for the cities of Washington DC, San Francisco, Miami Dade, Sacramento, New York, Baltimore, Vancouver, Singapore, Hong Kong and Melbourne all of which have multiple plants and impending or current nutrient reduction requirements. As such Beverley has extensive experience in developing strategic roadmaps and cost effective alternatives and solutions for nutrient management programs to meet Limit of technology discharge requirements (TN<3 mg/l, TP<0.18 mg/l). Because of this extensive experience, Dr. Stinson was invited to serve as a Technical Advisor to the Governor of Maryland on the Chesapeake Bay Restoration Program and to assist in the development and management oversight of a funding program for the upgrade of over 96 POTWs. Dr. Stinson also serves as the research director for AECOM Water, helping to identify and advance promising technologies and treatment concepts that offer better performance at reduced cost and operational complexity. Beverley has been engaged in the piloting and concept design for the installation of the first sidestream deammonifiation plant to treat thermally hydrolyzed filtrate and the largest in the world at Blue Plains and also the first large scale mainstream deammonification demonstration plant in the world in Singapore. She has served as a Principal Investigator and Technical Contributor for WERF on numerous projects including the recent mainstream deammonification compendium. Dr. Stinson also serves on the Water Environment Research Foundation's Research Council. Dr. Stinson's projects have received more than 20 national awards and have been documented in more than 60 technical publications and presentations. The most recent award (September 2014) was the Honor award for applied research on mainstream deammonification from the International Water Association Global Project Innovation Competition. This award celebrates the leadership role that AECOM and its clients are playing in advancing mainstream deammonification which is an emerging sustainable and energy efficient nitrogen removal technology. Dr. Stinson's research over the past two years has been supported by funding from AECOM contractual sources of funding with clients such as District Of Columbia Water and Sewer Authority and Water Environment Research Foundation; Dr. Stinson personally has received no external research grants nor has any research contracts from either government agencies, private companies, or foundations.

Tanguay, Robert L.

Oregon State University

Dr. Robert L. Tanguay is a Distinguished Professor of Environmental and Molecular Toxicology in the Department of Environmental and Molecular Toxicology at Oregon State University (OSU), and Director of OSU's Sinnhuber Aquatic Research Laboratory. He is also the director of two National Institutes of Health training grants, and is dedicated mentor. He holds a B.S. in Biology from California State University and a Ph.D. in Biochemistry from the University of California – Riverside. He received postdoctoral training at the University of Wisconsin-Madison, and was a faculty member at the University of Colorado School of Pharmacy for 4 years. Dr. Tanguay was recruited to OSU in 2003 and has created a world-class zebrafish-focused research facility that is specifically designed for environmental health related research. Over his career, he has led the charge for advancing the use of zebrafish as a model organism to study environmental effects on human health. Dr. Tanguay investigates the environmental and biological interactions and mechanisms by which environmental exposures produce biological responses. He studies the mechanisms underlying developmental responses to chemicals such as 2,3,7,8-tetrachlorodibenzo-p-dioxin, polycyclic aromatic hydrocarbons, pesticides, nanomaterials, and complex environmental mixtures. Dr. Tanguay continues to develop new methods and approaches to discover the molecular pathways that prevent or promote vertebrate tissue regeneration. This is primarily done using genetics, "omics" techniques and informatics that are intimately anchored to phenotypes. Over the past several years he has also transitioned to the field of green chemistry and green nanotechnology. Dr. Tanguay's laboratory is dedicated to define the nanomaterial characteristics that drive biological responses; with the goal to safely advance the field of nanotechnology. Over his career he has published over 140 manuscripts and review articles that span the areas of toxicology, biochemistry, genetics, behavior, and regenerative medicine. Dr. Tanguay recently received recognition as a University Distinguished Professor in 2011, and received a Career Achievement Award from the Pacific Northwest Association of Toxicologists (2012). His students have received dozens of research awards for advancing the molecular toxicology field. Dr. Tanguay has a broad and federally funded research base. Dr. Tanguay's research has been supported by grants primarily from government agencies, with core grant research support primarily from the federal government (U.S. Environmental Protection Agency and the National Institutes of Health).

Tomasi, Theodore D.

Environmental Resources Management, Inc.

Dr. Ted Tomasi has over 30 years of experience as a professional economist, specializing in natural resource and environmental matters. He has focused on the development and application of methods for valuing natural resources, environmental quality change, and ecosystem services, and on assessing and managing risk in natural resource and environmental decisions. His research and consulting activities have focused on water-related issues, including ground and surface water management, valuing water quality impacts, water-related recreation, community values for water, and benefit-cost analysis. He holds a B.A. in Environment and Public Policy and M.A. in Economics from the University of Colorado, and Ph.D. in Natural Resource Economics from the University of Michigan. He has served on the faculties of the Universities of Minnesota, Michigan and Delaware, and at Michigan State University. For the past 20 years he has been a consultant to governments and private industry on environmental matters, directed several large-scale consulting engagements, managed a multi-disciplinary scientific staff of approximately 400 environmental consultants, and provided expert testimony and litigation support in several significant environmental cases. Dr. Tomasi's work over the past two years has been supported by contracts Dow, Honeywell, BP, Chevron, and NCR; he has received no external research grants nor has any research contracts from government agencies, companies, or foundations.

Turner, Jay

Washington University, St. Louis

Dr. Jay Turner is an Associate Professor of Energy, Environmental and Chemical Engineering at Washington University in St. Louis. Dr. Turner holds B.S. and M.S. degrees from UCLA and a D.Sc. from Washington University, all in Chemical Engineering. Following his M.S. studies, he spent two years at the University of Duisburg, Germany, where he was a DAAD Fellow. Following his D.Sc. studies, Dr. Turner spent eight months on assignment with the Federal Highway Administration, U.S. Department of Transportation, as an Air Quality Specialist. He subsequently joined the Washington University faculty in 1994 as an Assistant Professor of Engineering & Policy. Dr. Turner's research primarily focuses on air quality characterization and control with emphasis on field measurements and data analysis to support a variety of applications in the atmospheric science, regulation and policy, and health studies arenas. He was the Principal Investigator of the St. Louis – Midwest Fine Particulate Matter Supersite. He manages a field site in East St. Louis that has hosted several Federal Equivalent Method testing campaigns and was recently one of two U.S. Environmental Protection Agency (EPA) coarse particulate matter pilot speciation study sites. Current and recent research projects include estimating lead emissions from piston engine aircraft, source apportionment of ambient particulate matter in Hong Kong, assessing intraurban variability of air toxics metals, and long-term fenceline monitoring for gaseous air toxics and particulate matter species at an industrial facility. Recent consulting activities include monitoring guidance and/or data analyses for agencies in four states in support of State Implementation Plan development. He is currently Washington University lead investigator on a contract from the Airport Cooperative Research Program (ACRP) to Sierra Research, Inc. to develop approaches to mitigate lead concentration hot spots at general aviation airports, and PI on an MOU between ConocoPhillips and Washington University to conduct the Roxana Air Quality Study. His consulting work is currently funded by the Millennium Challenge Corporation (MCC) through Social Impact to conduct an air quality impact evaluation of a heating stove replacement program in Mongolia, and by The Organisation for Economic Co-operation and Development (OECD) to assess the state of air quality monitoring in 51 countries and develop a framework for estimating air quality indicators. A secondary area of research and teaching is green engineering and Dr. Turner recently completed a project for Monsanto and Archer Daniels Midland to conduct technical, economic and life cycle inventory analyses for second generation biofuels. Dr. Turner has served on several state and local air quality-related advisory committees and the Science and Technical Support Workgroup of the Federal Advisory Committee Act (FACA) Subcommittee for Ozone, Particulate Matter, and Regional Haze Implementation Programs. He currently serves on the Ambient Monitoring and Methods Subcommittee (AMMS) of EPA's Clean Air Scientific Advisory Committee (CASAC) and the Independent Technical Advisory Committee of the Texas Air Quality Research Program. He recently served on the Health Effects Institute project panel for the National Particle Components Toxicity Initiative. Dr. Turner was general chair for the 2007 Annual Conference of the American Association for Aerosol Research (AAAR) and currently serves as AAAR President. He previously served on the Science and Technology Achievement Awards (STAA) Committee of the EPA Science Advisory Board (term 2012-2014).