

**Invitation for Public Comment on the List of Candidates
For the EPA Science Advisory Board
(Updated July 1, 2014)**

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a *Federal Register* Notice on April 18, 2014 (79 FR 21922-21923) that it was inviting nominations of experts to be considered for the Administrator's appointment to the chartered Science Advisory Board.

The SAB was established in 1978 by the Environmental Research, Development and Demonstration Authorization Act to provide independent advice to the Administrator on scientific and technical matters underlying the agency's policies and actions. The chartered SAB provides strategic advice to the EPA Administrator on a variety of EPA science and research programs. All the work of SAB committees and panels is under the direction of the chartered SAB. The chartered SAB reviews all SAB committee and panel draft reports and determines whether they are appropriate to send to the EPA Administrator.

The SAB Staff Office sought nominations of experts to serve on the chartered SAB in the following disciplines as they relate to human health and the environment: *analytical chemistry; ecological sciences and ecological assessment; economics; engineering; geochemistry, health sciences; hydrology; hydrogeology; medicine; microbiology; modeling; pediatric medicine; public health; risk assessment; social, behavioral and decision sciences; and statistics*. The SAB Staff Office is especially interested in scientists with expertise described above who have knowledge and experience in *air quality; agricultural sciences; climate change; drinking water; energy and the environment; water quality; water quantity; water re-use; ecosystem services; community environmental health; health disparities; sustainability; chemical safety; green chemistry; human health risk assessment; homeland security; and waste and waste management*.

Based on public nominations and experts independently identified by the SAB Staff Office, the SAB Staff Office identified 48 candidates based on their expertise and willingness to serve. We hereby invite public comments on the attached List of Candidates for consideration by the SAB Staff Office. Comments should be submitted to Dr. Angela Nugent, Designated Federal Officer, no later than July 23, 2014 at Nugent.angela@epa.gov. Please be advised that public comments are subject to release under the Freedom of Information Act.

List of Candidates for the Chartered SAB

Alexeeff, George

California Environmental Protection Agency

Dr. George Alexeeff, Ph.D. is Director of the Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency. He provides scientific and policy input on the medical, scientific, and public health risks posed by hazardous substances and act as a scientific expert on health effects of various contaminants. He oversees a staff of 125 including over 80 scientists in multidisciplinary evaluations of the health impacts of pollutants and toxicants in air, water, soil and other media. He is also an adjunct Professor in the Department of Environmental Toxicology at the University of California at Davis. He earned his Ph.D. in Pharmacology and Toxicology from the University of California at Davis and has been certified as a Diplomat of the American Board of Toxicology, Inc. (DABT) since 1986. He has reviewed over 140 documents evaluating human epidemiological or animal toxicological evidence for OEHHA or other agencies such as U.S. EPA. Dr. Alexeeff has recently served on three National Academy of Sciences' Committees, and is a current member of the U.S. EPA Science Advisory Board's Drinking Water Committee, and EPA's Science Advisory Board. Dr. Alexeeff's professional activities include: past President of the Northern California Chapter of the Society of Toxicology, the past President Genetic and Environmental Toxicology Association of Northern California, member of the Society of Toxicology, and charter member of the Society for Risk Analysis. Dr. Alexeeff's area of expertise and research include toxicology, inhalation toxicology, risk assessment, and environmental justice. Currently Dr. Alexeeff is not receiving any grant funding.

Allen, David T.

The University of Texas

Dr. David Allen is the Gertz Regents Professor of Chemical Engineering, and the Director of the Center for Energy and Environmental Resources, at the University of Texas at Austin. He is the author of eight books and over 200 papers. For the past two decades, his work has focused primarily on urban air quality and the development of materials for environmental and engineering education. Dr. Allen was a lead investigator for the first and second Texas Air Quality Studies, which involved hundreds of researchers drawn from around the world, and which have had a substantial impact on the direction of air quality policies in Texas. He has developed environmental educational materials for engineering curricula and for the University's core curriculum, as well as engineering education materials for high school students. The quality of his work has been recognized by the National Science Foundation (through the Presidential Young Investigator Award), the AT&T Foundation (through an Industrial Ecology Fellowship), the American Institute of Chemical Engineers (through the Cecil Award for contributions to environmental engineering and through the Research Excellence Award of the Sustainable Engineering Forum), the Association of Environmental Engineering and Science Professors (through their Distinguished Lecturer Award), and the State of Texas (through the Governor's Environmental Excellence Award). He has won teaching awards at the University of Texas and UCLA. Dr. Allen received his B.S. degree in Chemical Engineering, with distinction, from Cornell University in 1979. His M.S. and Ph.D. degrees in Chemical Engineering were awarded by the California Institute of Technology in 1981 and 1983. He has held tenured faculty appointments at UCLA and the University of Texas and visiting faculty appointments at the California Institute of Technology, the University of California, Santa Barbara, and the Department of Energy. Dr. Allen's research is supported by EPA (for examining the air quality impacts of drought and electrical grids), the National Science Foundation (for smart, green, electrical grids and for the development of high school engineering programs), a consortium including Environmental Defense Fund and natural gas producers (for the measuring the methane emissions of natural gas production), and the federal court system (for measuring air pollutant concentrations in neighborhoods near petroleum refineries).

Alvarez, Pedro

Rice University

Dr. Pedro J. Alvarez is the George R. Brown Professor and Chair of Civil and Environmental Engineering Department at Rice University. He received a degree in Civil Engineering from McGill University and MS and Ph.D. degrees in Environmental Engineering from the University of Michigan. His research focuses on environmental sustainability through bioremediation of contaminated aquifers, fate and transport of toxic chemicals, the water footprint of biofuels, microbial-plant interactions, medical bioremediation, and environmental implications and applications of nanotechnology. Dr. Alvarez is a Diplomate of the American Academy of Environmental Engineers and a Fellow of ASCE. Past honors include President of AEESP, Honorary Consul of Nicaragua, the Malcom Pirnie-AEESP Frontiers in Research Award, the WEF McKee Medal for Groundwater Protection, the SERDP cleanup project of the year award, the Button of the City of Valencia, the Collegiate Excellence in Teaching Award from the University of Iowa; the Alejo Zuloaga Medal from the Universidad de Carabobo, Venezuela; a Career Award from the National Science Foundation; a Rackham Fellowship, and best paper awards from the EPA/HSRC for Regions 7 & 8; WEF, and the Battelle Bioremediation Symposium. Dr. Alvarez currently serves on the editorial board of Environmental Science and Technology, and as honorary professor at Nankai and Kunming Universities in China and as adjunct professor at the Universidade Federal de Santa Catarina in Florianopolis, Brazil. Dr. Alvarez has also served as environmental advisor to the President of Nicaragua and as scientific advisor to the Mexican Petroleum Institute Biotechnology Program, the Cities of Ann Arbor, Managua and Valencia, the State of Iowa, and the governments of Dominica and Nicaragua on hazardous waste remediation and policy development. He has also given over 100 international invited lectures and has organized/chaired 15 international conference sessions. Dr. Alvarez's current and pending funding includes support from the following: Department of Defense, SERDP; National Science Foundation; CH2M Hill Engineers; American Petroleum Institute; and Chevron USA Inc.

Anderko, Laura

Georgetown University

Laura Anderko, PhD, RN, holds the Robert and Kathleen Scanlon Endowed Chair in Values Based Health Care at Georgetown University School of Nursing & Health Studies. She is a scholar and educator in the fields of epidemiology, public health and environmental health. A Robert Wood Johnson Executive Nurse Fellow, Dr. Anderko earned her Ph.D. in Public Health from the University of Illinois, an MS in nursing from Northern Illinois University, and a BSN in nursing from the University of Illinois. Involved in environmental health for over 20 years, Dr. Anderko has published widely and has been interviewed by a variety of media outlets about a wide range of environmental exposures and health. Dr. Anderko's environmental health research has focused on methylmercury toxicity and fish consumption and currently, climate change and public health with a focus on air quality, heat, and cardiorespiratory disease. She also has extensive experience in multi-disciplinary, community-based participatory research with a focus on the reduction of health disparities. Dr. Anderko's scholarship has been conducted in partnership with a variety of organizations that have been funded from public and private sources including the Environmental Protection Agency (EPA), the Robert Wood Johnson Foundation, Perkins + Will, Kresge Foundation, the Association of State and Territorial Health Officials (ASTHO), the Council of State and Territorial Epidemiologists (CSTE), the US Climate Action Network (USCAN), Blue Cross/Blue Shield Foundation, and Health Care Without Harm. Dr. Anderko has had appointments on federal advisory committees including the Children's Health Protection Advisory Committee for the Environmental Protection Agency (EPA), the Office of Minority Health's Regional Health Equity Council (HHS), the National Drinking Water Advisory Committee (EPA) and most recently, the National Environmental Justice Advisory Council's (EPA) Research Workgroup. Other national committee appointments include: the National Environmental Health Partnership Council (The American Public Health Association), the Alliance of Nurses for Healthy Environments, Healthy Schools Network, and the National Conversations on Chemical Policy and Public Health, Policies and Practices Workgroup, National Center for Environmental Health/Centers for Disease Control (Agency of Toxic Substances and Disease Registry). Dr. Anderko's work in environmental health has been recognized by the international organization Health Care Without Harm with the Charlotte Brody Award, and by the White House as a Champion of Change for her work in climate change and public health (<http://www.whitehouse.gov/blog/2013/07/17/changing-lens-communicating-public-health-issues>).

Arvai, Joseph

University of Calgary

Dr. Joseph Arvai is Professor and Svare Chair in Applied Decision Research at the University of Calgary. He is based in the Department of Geography, and the Institute for Public Health. Dr. Arvai is also a Senior Researcher at Decision Research in Eugene, OR, and an Adjunct Professor in Engineering and Public Policy at Carnegie Mellon University in Pittsburgh, PA. He received his Ph.D. in the decision sciences from the University of British Columbia and he also holds degrees in Ecology and Oceanography (BSc and MSc, respectively). He is an internationally recognized expert in the risk and decisions sciences; Dr. Arvai's research has two main areas of emphasis: First, his research is focused on advancing our understanding of how people process information and make decisions, with a specific emphasis on the interplay between cognitive (i.e., "analytic") and affective (i.e., "emotional") modes of judgment. Second, Joe and his team conduct research focused on developing and testing decision support systems that can be used by people to improve decision quality across a wide range of environmental, social, and economic contexts. These decision support systems can be classified as active (in that they decompose complex problems into more cognitively manageable parts) or passive (in that they modify human behavior in self-interested directions without modifying people's decision-making tendencies). Dr. Arvai is a member of the U.S. National Academy of Sciences' Board on Environmental Change and Society. Dr. Arvai's current research is supported by grants from: the Canada School for Energy and Environment (national energy strategy); the National Science Foundation (decision-makers' use of information from climate science); that National Oceanographic and Atmospheric Administration (risk management for droughts and floods); Carbon Management Canada (carbon management and climate change); and the International Development Research Centre of Canada (protecting and enhancing ecosystem services in developing countries).

Auvermann, Brent

Texas A&M University

Dr. Brent Auvermann is Professor of Biological and Agricultural Engineering (BAEN) and Extension Specialist with Texas A&M AgriLife. His position with Texas A&M AgriLife consists of a joint appointment, with 65% Extension and 35% research. He also holds an Adjunct Professor appointment at West Texas A&M University. Dr. Auvermann holds a B.S. (1986) and M.S. (1990) in Agricultural Engineering from Texas A&M University, and a Ph.D. in Chemical and Bioresource Engineering from Colorado State University (1996). His research program centers on environmental aspects of concentrated livestock production, with 15 years of work in air pollution. Dr. Auvermann has obtained competitive and special grants in air-quality topics totaling multi-million dollars over the past ten years. His primary research focus has been particulate matter but has also collaborated in research on ammonia, hydrogen sulfide, dispersion modeling, and wet and dry deposition. Dr. Auvermann supervises and chairs graduate thesis/dissertation committees for M.S. and Ph.D. candidates at both Texas A&M University and West Texas A&M University. His office is located in Amarillo, TX, near the heart of the United States' cattle-feeding industry. Since 2007, Dr. Auvermann has operated the "Canonceta" deposition-monitoring sites for the National Atmospheric Deposition Program (NADP site ID: TX43) and the Clean Air Status and Trends Network (CASTNET site ID: PAL190). He has also worked closely with the concentrated dairy industry in Texas, New Mexico, and Arizona with respect to emissions measurement and mitigation techniques.

Barton, Hugh A.

Pfizer Inc

Dr. Hugh A. Barton is Associate Research Fellow for Pharmacokinetics, Dynamics, and Metabolism, at Pfizer, Inc. where he is lead modeler for the Pharmacokinetics/Safety area and a member of the global Translational Research Leadership Team. He has more than 20 years experience in biological modeling for use in biologically based dose-response analyses for chemical risk assessment and translation of in vitro and in vivo nonclinical findings to humans. His analyses have formed the basis for drug registration in the US and guidance and regulatory activities of several offices within the US Environmental Protection Agency. Dr. Barton has held positions in government (US EPA), industry (Pfizer, consulting and contract organizations), and academia (adjunct professor at Boston University School of Public Health and in Toxicology at The University of North Carolina at Chapel Hill). He has served on committees for the US EPA Science Advisory Board (Perchlorate), the National Research Council (Inorganic Arsenic), and World Health Organization International Programme on Chemical Safety (PBPK Modeling). He has been as an invited peer-reviewer for Health Canada, National Institute of Environmental Health Sciences, and Toxicology Excellence for Risk Assessment and he is listed on the Joint FAO/WHO Meeting on Pesticide Residues Expert Roster. He is currently Vice President of the Risk Assessment Specialty Section of the Society of Toxicology. He received a B.S. in Life Sciences from the Massachusetts Institute of Technology, Cambridge, MA and a Ph.D. in Toxicology from the Department of Applied Biological Sciences at MIT. He is a reviewer for numerous scientific journals and serves on two editorial boards. Dr. Barton has published more than 50 articles in the scientific literature on physiologically based pharmacokinetic and pharmacodynamic (PBPK/PD) modeling and received awards from US EPA and others for that work and its applications in risk assessment. Dr. Barton's research is funded by Pfizer, Inc.

Batabyal, Amit

Rochester Institute of Technology

Amit Batabyal is the Arthur J. Gosnell Professor of Economics at the Rochester Institute of Technology in Rochester, New York. He has conducted research on the design of international environmental agreements, issues at the interface of international trade and the environment, ecological economics, invasive species management, environmental regulation and the optimal use and management of natural resources. This research has led to the publication of over 500 books, journal articles, book chapters, and book reviews. He has served on several committees in professional organizations and is an Editor-in-Chief of Letters in Spatial and Resource Sciences.

Becker, Jennifer

Michigan Technological University

Dr. Jennifer G. Becker is an Associate Professor of Environmental Engineering at Michigan Technological University. She holds a B.S. in Environmental Engineering from Michigan Technological University, an M.S. in Civil Engineering (Environmental) from the University of Illinois at Urbana-Champaign, and a Ph.D. in Civil Engineering (Environmental) from Northwestern University. Dr. Becker's research focuses on engineered biological processes for the sustainable treatment of groundwater, wastewater and residuals. Specifically, she is interested in the bioremediation and environmental fate of hazardous contaminants in the subsurface, the treatment of emerging pollutants in municipal wastewater, microbial processes for bioenergy production, and the sustainable treatment and management of residuals from municipal wastewater treatment and agricultural and industrial processes. Her research has primarily been supported by the National Science Foundation (NSF). Previously, Dr. Becker held a tenured faculty position and served as a Maryland Cooperative Extension Specialist (in agricultural waste management) at the University of Maryland, College Park. She is currently President of the Association of Environmental Engineering and Science Professors (AEESP) and serves on its Board of Directors. The quality of Dr. Becker's work has been recognized with the Presidential Early Career Award for Scientists and Engineers, the highest honor bestowed by the U.S. government on outstanding scientists and engineers beginning their independent careers, as well as a NSF Early Career Development Program (CAREER) Award, the Robert A. Canham Award from the Water Environment Federation, the AEESP/Montgomery Watson Harza Master's Thesis Award (both as the advisor and student), the Junior Faculty Award from the College of Agriculture and Natural Resources, University of Maryland, College Park and several other awards.

Boadu, Fred Kofi

Duke University

Dr. Fred Boadu, is an Associate Professor in Civil and Environmental Engineering and the Nicholas School of the Environment at Duke University, USA. He obtained his BSc. in Geological Engineering from Kwame Nkrumah University of Science and Technology (KNUST, Ghana), MSc. from McGill University in Canada and PhD in Applied Geophysics from Georgia Institute of Technology (Georgia Tech). He was a visiting scholar at Stanford University and presently an adjunct faculty member at University of Western Ontario Canada and KNUST, Ghana. He was the Oak Ridge Associated Universities (ORAU) Junior Faculty Enhancement Award winner. Prof. Boadu's research interests involve the use of geophysical techniques and geological engineering concepts in addressing geotechnical engineering and environmental geosciences issues and challenges with impact on global and public health problems in the developing world. He has been engaged in collaborative environmental geoscience research activities on nitrate contamination in groundwater resources, in rural communities as well as used oil contamination in urban area in Ghana. He is the author of numerous scientific publications in the field of Applied Geophysics and engineering geology in international and national journals. Presently, Prof Boadu is an Associate editor of the Journal of Engineering and Environmental Geophysics. He

was the Guest Editor of Near Surface Geophysics, special session on Geotechnical assessment / geo-environmental engineering. He has helped developed a Geophysical Engineering program at KNUST (Geological Engineering Department) to train graduates in part to address environmental problems in developing world in a cost effective manner. He has organized and chaired several sessions on applications of geological/geophysical techniques for humanitarian needs at American Geophysical Union (AGU), Society of Exploration Geophysics (SEG) meetings. Presently Prof. Boadu is a Member of Board of Directors for Engineering and Environmental Geophysics Society (US), member of the Advisory Board North Carolina Central University on Initiative for Transforming and Sustaining Science, Technology, Engineering and Mathematics (ITSSTEM) sponsored by NSF, a Global Representative for Africa (SEG), research advisory board member at King Fahd University of Petroleum & Minerals (reviewer). He has been a recipient of research funding from NSF, DOE, NASA, NIH, Dupont Inc, Texaco, American Chemical Society, Lord Foundation, Burroughs Wellcome and others. At Duke, he serves as a member of the steering committee for African Initiative, executive Member of Black Faculty caucus and on the Graduate Students Advisory Board. He is the faculty advisor, African Students Association, National Society of Black Engineers and Black Students Alliance.

Brouder, Sylvie M.

Purdue University

Dr. Sylvie Brouder is a Professor and Wickersham Chair of Excellence in Agricultural Research in the Agronomy Department at Purdue University and Director of Purdue's Water Quality Field Station (WQFS). In the peer review literature, she has authored over 60 research publications and 35 publications and training guides for agricultural professionals and farmers; she has authored an additional 60 technical publications and conference proceedings. A foundational theme of her program as well as that of the WQFS research portfolio is to advance quantitative approaches and ecological accounting frameworks to inform the valuation of multiple ecosystem services (ES) and their synergies and tradeoffs. She is an expert in ecological / sustainable intensification of mixed use landscapes and her research focuses on field-to-landscape scale nutrient cycling with an emphasis on crop ecology, water quality, greenhouse gas emissions and nutrient balances and losses in agro-ecosystems. Her work is recognized through awards and advisory appointments. She is a Fellow of the American Society of Agronomy and of the Food Systems Leadership Institute (Cohort 8) and has received numerous publication and educational / Extension materials awards from professional societies. She is a Certified Senior Ecologist through the Ecological Society of America and currently serves on their Board of Professional Certification. She has served in an array of short-term, appointed advisory roles including for Packard Foundation, Bill and Melinda Gates Foundation, FAO CGIAR Independent Science and Partnership Council and Independent Evaluation Agreement, USAID Feed the Future Initiative and DOE Bioenergy Technology Office's Sustainability and Analysis Platform. Dr. Brouder received her B.A. in Biology from Harvard University and her Ph.D. in Ecology from the Ecology Graduate Group at the University of California – Davis. Her current, tenured appointment at Purdue is split between research, Extension education, and on-campus teaching and she has received extramural support for all three mission areas. Funding sources in the last two years are USDA National Institute for Food and Agriculture, USDA/DOE North Central Sungrant Program, DOE Bioenergy Technology Office, and the International Plant Nutrition Institute (for assessing tradeoffs among provisioning, regulating and supporting ES with bioenergy crop production in prime and marginal landscapes). Additional funding for educational materials development and capacity building is from NSF Research Experience for Undergraduates (for summer research projects in nutrient cycling), USAID International Science Education (for internationalizing crop, soil and environmental science curricula), and USDA National Needs Fellowship (for graduate education to meet the agro-ES challenge) Programs.

Chen, Celia

Dartmouth College

Dr. Celia Chen is a Research Professor in the Department of Biological Sciences at Dartmouth College. She has been a lead scientist for 19 years in the Dartmouth Toxic Metals Superfund Research Program and has studied the fate and effects of metal contaminants in freshwater and estuarine ecosystems including the bioaccumulation and trophic transfer of mercury in lakes throughout the Northeast United States and coastal marshes from Maine to Maryland. She has also conducted research on using genomic tools as biomarkers of metal exposure for the model organisms, *Daphnia pulex* and *Fundulus heteroclitus*. She has investigated the effects of multiple stressors on aquatic organisms by developing methods for quantifying the antagonistic, synergistic, and additive effects of stressors such as organic contaminants, pH, food availability, and temperature. Dr. Chen has also studied the impact of environmental changes related to climate on demography and phenology of aquatic invertebrates, and more recently on the cycling and fate of methylmercury in marine ecosystems. Dr. Chen received her undergraduate degree in Biology and Environmental Studies at Dartmouth College, a masters degree in Biological Oceanography at the Graduate School of Oceanography of the University of Rhode Island and a Ph.D. in Ecology from Dartmouth College. She worked as a Staff Officer at the Marine Board of the National Research Council and has chaired regional and international workshops on mercury in marine ecosystems. In 2010-2012, she led a science translation initiative, the Coastal Marine Mercury Ecosystem Research Collaborative comprised of over 70 mercury scientists, to bring mercury science to national and international policy-makers. She is currently a Review Editor for the journal, *Ecohealth*, and has been a guest editor of special issues in *Environmental Research*, *Environmental Health Perspectives*, *Estuaries and Coasts*, and *Ecohealth*. She currently serves on the U.S. EPA Science Advisory Board Ecological Processes and Effects Committee as well as the Board of the North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry, Gelfond Fund Advisory Committee at Stony Brook University, and the Scientific Advisory Committee of the Lake Sunapee Protection Association in New Hampshire. Her research has recently been supported by the National Institute of Environmental Health Sciences, the National Science Foundation, and the U.S. Department of Agriculture Forest Service.

Choi, Anna

Harvard School of Public Health

Dr. Anna L Choi is a Research Scientist at the Department of Environmental Health, Harvard School of Public Health. The quality of her extensive work in studying the effects of ocean pollutants on neurodevelopmental delays in children and type 2 diabetes and cardiovascular dysfunction among the elderly has been recognized by the publications of multiple scientific papers, book chapters, and invitations to speak in national and international conferences on the environment and health. Dr. Choi is a highly experienced environmental epidemiologist with extensive training in biostatistics. She has studied the mercury-exposed and PCB-exposure birth cohorts. She has applied her experience in advanced epidemiological and statistical methods including structural equation modeling to assess the association of marine food contaminants with adverse health outcomes, such as neurodevelopmental delays among children and type 2 diabetes and cardiovascular dysfunction among septuagenarians. Her current research projects include studying immunotoxicity in humans with lifetime exposure to ocean pollutants such as Persistent Organic Pollutants (POPs) and PFCs, glucose metabolism in adults who were prenatally exposed to diabetogenic pollutants, and the diabetogenic effects of POPs and health-policy in the prevention of obesity and type 2 diabetes. She has also led a feasibility study to assess the potential neurotoxicity of fluoride in child development in China, with the collaboration of researchers from the U.S. and China. The findings resulted in a submitted manuscript and the planning of a long-term study. She is also actively involved in the research on the impact of nutrients as possible negative confounders that may have caused an underestimation of methylmercury toxicity. In addition, she is a regular reviewer for peer-reviewed journals including Environmental Health, Environmental Health Perspectives, Environmental Research, Environmental Science and Technology, International Journal of Environmental Research and Public Health, Neurotoxicity, and Pediatrics. Dr. Choi received her B.A. degree in Statistics and Computer Science, with distinction, from the University of Rochester. Her M.S. degree in Biostatistics and ScD degree in Environmental Epidemiology were awarded by Harvard University. Dr. Choi's research is supported by the National Institute of Environmental Health Sciences (for examining the immunotoxicity in humans with lifetime exposure to ocean pollutants; glucose metabolism in adults prenatally exposed to diabetogenic pollutants; and gut microbiome in adults with early life exposures to environmental chemicals), and the National Science Foundation (joint support with the National Institute of Environmental Health Sciences to study the immunotoxicity in humans with lifetime exposure to ocean pollutants).

Cobb, III, George P.

Baylor University

Dr. George P. Cobb is a Professor at Baylor University, where he serves as Chair of the Department of Environmental Science. Prof. Cobb received a BS in Chemistry from the College of Charleston (1982). Thereafter, he received a Ph.D. in Chemistry from The University of South Florida (1989), where he developed sampling strategies to determine vapor/particle distribution of atmospheric organic chemicals. Prof. Cobb has published over 110 peer-reviewed journal articles as well as numerous book chapters. Throughout his career, Prof. Cobb has developed novel sampling and analysis techniques to quantify a wide range of chemicals, including persistent organic pollutants, volatile organics, cholinergic insecticides, trace metals, explosives, and nanomaterials. Prof. Cobb's approaches allow quantification of toxicants at environmentally relevant concentrations, and as such, his techniques have been used to evaluate toxicant transport, transformation, and biological exposure. These approaches have often been used to assess risks in aquatic and riparian systems rapidly and cost effectively. Prof. Cobb and his research group recently employed novel microRNA techniques to assess organism susceptibility and response to toxicant exposure. This research has been funded by NIEHS, NCER, DOD, DOE, as well as state and local governments. Prof. Cobb has served on more than one dozen United States Environmental Protection Agency (USEPA) Science Advisory Panels to evaluate risks of pesticides and genetically modified organisms. He also serves in leadership positions within the American Chemical Society, primarily within the Division of Environmental Chemistry and as a subcommittee chair for the Committee for Environmental Improvement. He previously served on the World Council for the Society of Environmental Toxicology and Chemistry (SETAC), and is a past President of SETAC North America.

Dourson, Michael

Toxicology Excellence for Risk Assessment

Dr. Dourson is the Director of Toxicology Excellence for Risk Assessment (TERA). He has a PhD in toxicology from the University of Cincinnati in 1980 and is a Diplomate of the American Board of Toxicology (ABT). He has led TERA's development of partnerships among diverse groups to address chemicals of high visibility, such as formaldehyde, perchlorate, chloroform, and soluble nickel, and cooperative ventures such as the Voluntary Children's Chemical Exposure Program, the International Toxicity Estimates for Risk database (available at Toxnet), and the Alliance for Risk Assessment. He also worked 15 years for EPA, holding several leadership roles and winning awards for joint efforts, such as the creation of EPA's Integrated Risk Information System. In 2003, he won the Society of Toxicology (SOT) Lehman award for major contributions that improve the scientific basis of risk assessment. In 2007, he was elected a Fellow of the Academy of Toxicological Sciences. In 2009, he won the International Society of Regulatory Toxicology and Pharmacology's International Achievement Award in recognition of his outstanding contributions nationally and internationally to the advancement of regulatory science. In 2009, he was also selected a Fellow for the Society for Risk Analysis (SRA) for substantial achievement in science relating to risk analysis and service to SRA. Dr. Dourson has co-published over 150 papers on specific chemical assessments and risk methods, including methods for assessing risk in sensitive subgroups and on use of animal and human data in the assessment of risk. He has also co-authored well over 100 government risk assessment documents, made well over 100 invited presentations, and chaired well over 100 sessions at scientific meetings and independent peer reviews. He has been elected to multiple officer positions in the American Board of Toxicology, the Society of Toxicology (SOT), and the Society for Risk Analysis. In addition to numerous appointments on government panels, such as EPA's Science Advisory Board, he is also a media resource specialist in risk assessment for the SOT, member on the editorial board of several journals, and vice chair of the NSF International Health Advisory Board. Research funding for TERA has been approximately 2/3rds

government and other nonprofit work and approximately 1/3rd for industry and industry-related. A summary of this funding can be found at <http://www.tera.org/about/FundingSources.html>.

Graff Zivin, Joshua

University of California - San Diego

Dr. Joshua Graff Zivin is professor of economics at University of California San Diego, where he holds faculty positions in the School of International Relations and Pacific Studies and the Department of Economics. He is an environmental economist, with considerable expertise in the area of human health. His recent research has focused on the relationship between the environment and human capital, including pioneering research on the impacts of air pollution on worker productivity. He is also currently engaged in interesting work that examines the impacts of pollution on cognitive performance, which also has important long-run labor market implications. In addition to his academic work, Graff Zivin has engaged in a number of professional activities that make him particularly well suited to the EPA's Scientific Advisory Board. In 2004-2005, he served as Senior Economist for Health and the Environment on the White House Council of Economic Advisers and is thus quite familiar with the national environmental policy making process. He also has considerable experience working in interdisciplinary teams, including recent service on a National Academies Committee on Health Impact Assessment. Dr. Graff Zivin is currently the Principal Investigator of a National Science Foundation Grant that examines the economic returns to publicly funded research. He is also the co-PI of a grant from the UC Center for Energy and Environmental Economics that examines the long term employment effects from early childhood exposure to air pollution.

Hays, Sean

Summit Toxicology

Dr. Sean Hays is the President and founder of Summit Toxicology, a toxicology and risk assessment consulting firm headquartered in Colorado, and is Assistant Clinical Professor in the Colorado School of Public Health at the University of Colorado Denver and affiliate faculty in the Department of Chemical and Biological Engineering at Colorado State University. Sean received a B.S. in biomedical engineering from Texas A&M University, an M.S. in Physiology from the University of Vermont, an M.S. in chemical engineering from Colorado State University, and a Ph.D. in Toxicology from the University of Utrecht. Sean has over 18 years of experience, where he specializes in conducting exposure assessments, deriving acceptable exposure limits (i.e., reference doses and reference concentrations, cancer slope factors, occupational exposure limits, and minimal risk levels), and developing pharmacokinetic (PK), physiologically based pharmacokinetic (PBPK), and pharmacodynamic (PD) models for drugs and chemicals. Dr. Hays is also regarded as a leader in the field of interpreting human biomonitoring data. He has authored and coauthored over 70 peer-reviewed manuscripts and one book chapter in the field of exposure assessment and risk assessment. Sean has previously served as President of the Biological Modeling Specialty Section and is currently serving as the vice-president elect of the Risk Assessment Specialty Section of the Society of Toxicology. He also serves on the Industry Advisory Board for the Colorado State University School of Biomedical Engineering. Dr. Hays is currently serving on the Chemical Assessment Advisory Committee of the Science Advisory Board of the United States Environmental Protection Agency (US EPA) and has previously served on the Clean Air Scientific Advisory Committee on lead for the US EPA. Dr. Hays does not currently receive any research grants.

Hazen, Terry C.

The University of Tennessee

Dr. Hazen received his B. S. and M. S. degrees in Interdepartmental Biology from Michigan State University. His Ph.D. is from Wake Forest University in Microbial Ecology. Dr. Hazen was Professor, Chairman of Biology and Director of Graduate Studies at the University of Puerto Rico for 8 years. He was Head of the Ecology Department, Center for Environmental Biotechnology, Microbial Communities Department of the Joint BioEnergy Institute, co-director of the Virtual Institute for Microbial Stress and Survival and the Microbial Enhanced Hydrocarbon Recovery Program of the Energy Biosciences Institute at Lawrence Berkeley National Laboratory. Currently he is the UT/ORNL Governor's Chair at the University of Tennessee and Professor in the Departments of Civil and Environmental Engineering, Microbiology, and Earth and Planetary Sciences. He is also member of the Bredesen Center, Center of Environmental Biotechnology, Joint Institute for Biological Sciences and the Genome Science and Technology Program. He is also a Faculty Fellow in the Biosciences Division of the Oak Ridge National Laboratory. He is a fellow of the American Academy of Microbiology, the American Association for the Advancement of Science and a committee member of the American Society for Microbiology Committee on Environmental Microbiology and he has authored more than 295 scientific publications. He has presented his work 1,560 times (1110 invited, 1120 abstracts published). He has patents on 5 bioremediation processes that are being used in 35 states and several countries in Canada, Europe and Asia. Prof. Hazen has supervised the graduate theses of 33 students and 22 postdoctoral fellows. He has obtained competitive research funding totaling more than \$180 million, not including major institutional grants that he directed of more than \$220 million. He received the R&D 100 award in 1995 and 1996 for bioremediation technologies, and numerous other awards. In 2005 he received the DOE BER Distinguished Scientist Award (one of only four ever given). His area of specialty is environmental microbiology, especially as it relates to bioremediation, water quality, bioenergy and carbon cycling.

Huber, William

Quantitative Decisions

Dr. Huber's expertise is environmental statistics and related fields of risk assessment, geospatial analysis, and general statistical analysis. During 26 years working as a consultant, he has brought this expertise to bear on a wide variety of projects ranging from investigations to cleanups to research and litigation support across the United States, Canada, and Mexico. He has started or owned four companies engaged in software development, statistics, environmental engineering, and technical publishing. He has developed and delivered professional workshops and courses on environmental statistics, statistical regulations in Pennsylvania, spatial statistics, statistics for groundwater monitoring, statistical sampling methods, data analysis for remedial investigations, and environmental GIS. He currently operates as a private consultant doing business as Quantitative Decisions and as an associated expert for SS Papadopoulos and Associates, Inc. Dr. Huber has served on advisory committees concerning disinfection byproducts (for the NCEA, 1999); the NJDEP's Remedial Priority System stakeholder team (2010-2011); review of the Hendry County groundwater model for the South Florida Water Management District (2006); and review of the US EPA's Unified Final Guidance on statistical methods for RCRA groundwater monitoring (2005). He has been a peer reviewer for many journals, an associate editor for Risk Analysis and the Journal of Environmental Statistics, and editor of Directions Magazine, a GIS Web publication. He holds a PhD in mathematics from Columbia University.

Huggett, Robert

College of William and Mary

Dr. Robert J. Huggett is an independent consultant and Professor Emeritus at the College of William and Mary in Williamsburg, VA, where he was a faculty member for 20 years. Dr. Huggett served as Vice President for Research and Graduate Studies at Michigan State University from 1997 to 2004. Before that, he was Assistant Administrator for Research and Development at the U.S. Environmental Protection Agency from 1994 to 1997. He earned an M.S. in Marine Chemistry from the Scripps Institute of Oceanography at the University of California at San Diego and a Ph.D. in Marine Science at William and Mary. As a scholar, Dr. Huggett has studied the fate and effects of hazardous chemicals in aquatic environments, publishing more than 90 articles. His work has had important effects on international environmental policy and he has been very active in research and policy organizations at the national and international level. While he was at the EPA, he served as Vice Chair of the Committee on Environment and Natural Resources and Chair of the Subcommittee on toxic substances and solid wastes, both of the White House Office of Science and Technology Policy. He also founded the EPA 100 million dollar-per-year STAR Competitive Research grants program and the 3 million dollar-per-year STAR Graduate Fellowship program. He receives funding from the NEOGEN Corp. of Lansing, MI for environmental advice on their products.

Jacobs, David E.

University of Illinois at Chicago

David E. Jacobs, PhD, CIH is the Director of the US Collaborating Center for Research and Training on Housing Related Disease and Injury for the World Health Organization/Pan American Health Organization and is an Adjunct Associate Professor in the School of Public Health, Environmental and Occupational Health Sciences at the University of Illinois at Chicago. He also serves as the Research Director of the National Center for Healthy Housing and a faculty associate at the Bloomberg School of Public Health at Johns Hopkins University. His expertise is in the association of housing and community development on childhood and public health, risk assessment, exposure assessment, intervention design, social determinants of health and toxicology. He currently serves on the National Academy of Sciences, Institute of Medicine Committee On Post-Disaster Recovery Of A Community's Public Health, Medical and Social Services. He has published numerous scientific studies in the area of childhood lead poisoning prevention and healthy housing. He previously served on the lead dust panel for EPA's Science Advisory Board and was a member of the EPA Children's Health Protection Advisory Committee. Dr. Jacobs also served as the Director of the Office of Healthy Housing and Lead Hazard Control at the US Department of Housing and Urban Development, where he was responsible for research, enforcement, training, policy development and grants to local jurisdictions for lead hazard control and healthy housing remediation. While there, he helped to lay the scientific foundation for federal dust lead standards in housing. He is the scientific editor of a WHO book on the environmental burden of housing related disease and injury. He has testified before Congress on seven occasions and was the principal author of the President's Task Force on Children's Environmental Health and Safety Risks report on lead poisoning prevention, as well as a Report to Congress that launched the nation's healthy housing initiative. His work has been recognized by the Illinois Lead Safe Housing Task Force, a nomination for the White House Champion of Change for Public Health & Prevention, an Exemplary National Leadership Award from the Blue Cross/Blue Shield Foundation of Minnesota, the Leadership Award from the Lead and Environmental Hazards Association, and a Special Commendation for Outstanding Service from the U.S. Department of Justice. He has received grants from HUD, EPA, CDC, MacArthur Foundation, Enterprise Community Partners, NIEHS and others. He has degrees in Environmental Engineering, Technology and Science Policy, Environmental Health (chemistry) and Political Science.

Jones, Kimberly L.

Howard University

Dr. Kimberly L. Jones is a professor of Environmental Engineering and Chair of the Department of Civil and Environmental Engineering at Howard University in Washington, DC. She holds a B.S. in Civil Engineering from Howard University, a M.S. in Civil and Environmental Engineering from the University of Illinois

in Champaign, IL and a Ph.D. in Environmental Engineering from The Johns Hopkins University. Dr. Jones' research interests include developing membrane processes for environmental applications, physical-chemical processes for water and wastewater treatment, remediation of emerging contaminants, drinking water quality, and environmental nanotechnology. Dr. Jones currently serves on the Chartered Science Advisory Board of the US Environmental Protection Agency, and as chair of the Drinking Water Committee of the Science Advisory Board. She has served on the Water Science and Technology Board of the National Academy of Sciences, and the Board of Association of Environmental Engineering and Science Professors, where she was Secretary of the Board. She has served on several committees of the National Academy of Science and the Institute of Medicine. She served as the Deputy Director of the Keck Center for Nanoscale Materials for Molecular Recognition, one of the first centers to bring nanotechnology research to Howard University. She also serves on the Center Steering Committee of the Center for the Environmental Implications of Nanotechnology (CEINT), a National Environmental Nanotechnology Center. Dr. Jones has received a Top Women in Science Award from the National Technical Association, the Outstanding Young Civil Engineer award from University of Illinois Department of Civil and Environmental Engineering, a NSF CAREER Award, an Outstanding Leadership and Service award from the College of Engineering, Architecture and Computer Sciences at Howard, Outstanding Faculty Mentor award from the American Society of Civil Engineers HU Student Chapter and Top Women Achievers award from Essence Magazine. She also served as an associate editor of the Journal of Environmental Engineering (ASCE). Her primary sources of funding are the National Science Foundation (NSF), Department of Energy (DOE) and DC Water and Sewer Authority

Love, Nancy

University of Michigan

Dr. Nancy Love is a Professor of Civil and Environmental Engineering at the University of Michigan. She is the author of one book, two book chapters, 85 peer-reviewed journal papers and reports, and over 200 conference papers and presentations. For the past two decades, her work has focused primarily on the microbiological fate and public health implications of toxic chemicals and nutrients under various redox environments over the molecular, cellular and system scales with an emphasis on wastewater systems, and more recently on integrated modeling of urban water environments. During her time as Chair, Dr. Love developed and acquired funding for interdisciplinary academic and research programs on sustainable built infrastructure and infrastructure systems, and has recently become active in developing educational programs focused on the global engagement of students. Her work has been recognized through multiple organizations, including the National Science Foundation (CAREER Award), the Water Environment Research Foundation (Paul L. Busch Award for Innovation in Applied Water Quality Research), the Water Environment Federation (elected Fellow, Rudolfs Industrial Waste Management Medal, Harrison Prescott Eddy Medal, Gordon Maskew Fair Distinguished Engineering Educator Award), and the Association of Environmental Engineering and Science Professors (elected Board member, President). She is a licensed Professional Engineer and was designated a Board Certified Environmental Engineer through Eminence by the American Academy of Environmental Engineers and Scientists. She won teaching and mentoring excellence awards at Virginia Tech.

Mace, Robert

Texas Water Development Board

Dr. Robert E. Mace is a Deputy Executive Administrator for the Texas Water Development Board, managing the Water Science and Conservation office at the agency, a group of 66 scientists, engineers, and technicians focused on better understanding Texas' water resources. His technical background is in hydrogeology with an emphasis on numerical modeling, aquifer characterization, and geostatistics; however, he also has experience in groundwater contaminant transport, groundwater management, surface water, water conservation, water loss, desalination, water reuse, aquifer storage and recovery, water planning, drought response, and rainwater harvesting. He is recognized as an effective communicator of science to policymakers and is sought out to explain complicated water issues to non-technical audiences. Dr. Mace's work has been recognized by the U.S. Department of Interior (Partners in Conservation Award as part of an ensemble effort), National Ground Water Association (Technology Award), Texas State University (Distinguished Texas Hydrogeologist), Austin Geological Society (Distinguished Service Award), Barton Springs/Edwards Aquifer Conservation District (Conservation Award in Research), and Haskell Simon (Rosetta Stone Award). He is the chair of the Multi-State Salinity Coalition, a founding member and current board member and associate editor of the Texas Water Journal, a fellow of the Center for Public Policy Dispute Resolution, a board member of the Scientists and Engineers Board of the National Ground Water Association, a member of the Advisory Committee on Water Information, a member of the Water Conservation Advisory Council, a member of the Groundwater Contemporary Issues Council (California), a member of the Edwards Aquifer Habitat Conservation Plan Science Committee, the chair of the Texas STATEMAP Project Advisory Panel, and a former president of the Austin Geological Society. He is also a registered professional geoscientist with the Texas Board of Professional Geoscientists. Dr. Mace received his B.S. degree in Geophysics and an M.S. in Hydrology from the New Mexico Institute of Mining and Technology and a Ph.D. in Hydrogeology from The University of Texas at Austin. He and his research group are primarily funded by direct appropriations from the state of Texas but also receives or has received financial support from the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. Environmental Protection Agency, and University Corporation for Atmospheric Research. His group also works cooperatively with the U.S. Geological Survey.

Mauzerall, Denise

Princeton University

Dr. Denise Mauzerall is Professor of Environmental Engineering and International Affairs at Princeton University holding a joint appointment between the Woodrow Wilson School of Public and International Affairs and the Department of Civil and Environmental Engineering. Her research examines linkages between air pollution origin, transport and impacts, including impacts on human health, food security and climate change. She explores potential co-benefits

of reductions in air pollutants (eg. black carbon) for climate change and public health and the benefits of reduction in greenhouse gases (eg. methane) on air quality, health and agricultural yields. Recent research has assessed the climatic benefit of black carbon mitigation; evaluated the global reductions in crop production due to present and potential future ozone exposure as well as the benefits of methane mitigation and careful cultivar selection in reducing future agricultural crop losses due to ozone exposure; evaluated inter-continental transport of fine aerosols and their impact on public health; and estimated the impact of present and potential future emissions of aerosols from China on global air quality, premature mortality and radiative forcing. Current research is examining the impact of past and future climate change on air pollutant surface concentrations; evaluating the feasibility of improving nitrogen use efficiency in agriculture and thus reducing emissions of nitrous oxide, which is both an ozone depleting and greenhouse gas; evaluating methane leakage from abandoned oil and gas wells; exploring virtual water trade in China, and examining the benefits to air quality in China of increased penetration of renewable energy. Prior to Princeton Dr. Mauzerall was a post-doc at the National Center for Atmospheric Research, a program manager in the Global Change Division of the U.S. EPA where she implemented the Montreal Protocol, and an environmental consultant. She has authored over 50 peer-reviewed papers, has lectured widely around the world, has been a contributing author to the Intergovernmental Panel on Climate Change (IPCC) and currently is on the editorial board of the journal Atmospheric Environment. She is a member of several science advisory boards including two for European Commission projects (PANDA and ECLAIRE), the Princeton Institute for International and Regional Studies (PIIRS), and the Cooperative Institute for Climate Science (CICS) at Princeton. Her research has been funded by NASA, NOAA, and Princeton University. Dr. Mauzerall received a Sc.B. in chemistry from Brown University, an M.S. in Environmental Engineering from Stanford University and a Ph.D. in atmospheric chemistry in the Earth and Planetary Science department at Harvard University.

McGlynn, Brian

Duke University

Dr. Brian McGlynn is a Professor of Hydrology and Biogeosciences and the Chair of the Division of Earth and Ocean Sciences, Nicholas School of the Environment, Duke University. He received a B.A. degree in Environmental Science and a B.A. degree in American History from Gettysburg College. His M.S. and Ph.D. degrees in Hydrology were awarded by the State University of New York College of Environmental Science and Forestry at Syracuse. He has held tenured faculty appointments at Montana State University and Duke University. With expertise primarily in hydrology, soil and water resources, ecohydrology, and biogeochemistry, he is the author of over 75 publications. He has given more than 75 invited presentations and keynote addresses and more than 210 unsolicited scientific presentations. His work has focused on understanding the relationships between watershed form and hydrological, ecological, and biogeochemical function in natural and disturbed landscapes. His research group studies watershed hydrology (streamwater sources, flowpaths, and age), land-atmosphere CO₂, CH₄, N₂O, H₂O, and energy fluxes, watershed biogeochemistry, and hydrological / biogeochemical / ecological implications of landscape change. Dr. McGlynn has served on numerous review panels for the National Science Foundation, NASA, and the American Association for the Advancement of Science. He has served in multiple capacities for the American Geophysical Union, including co-initiating the Hydrology Early Career Award in Hydrology and serving on its panel and the Surface Water and Ecohydrology Technical Committees. Dr. McGlynn is the Science Chair for the 2014 Biennial Meeting of the Consortium of Universities for the Advancement of Hydrology, Inc. and has been a member of the Board of Directors since 2011. His research has been supported primarily by the National Science Foundation, U.S. Department of Agriculture, U.S. Forest Service, U.S. Geological Survey, the U.S. Department of Energy, the State of Montana, and the Environmental Protection Agency.

Minsker, Barbara S.

University of Illinois

Dr. Barbara S. Minsker is Professor and Arthur and Virginia Nauman Faculty Scholar in the Department of Civil and Environmental Engineering and Faculty Affiliate at the National Center for Supercomputing Applications, University of Illinois Urbana-Champaign. She holds a B.S. with Distinction from Cornell University in operations research and industrial engineering and a Ph.D. from Cornell University in environmental systems engineering. Prior to obtaining her Ph.D., she worked as a consultant to the Environmental Protection Agency in Washington, D.C, where she analyzed the costs and benefits of proposed drinking water and solid and hazardous regulations at ICF Incorporated and Wade Miller Associates. She has also served as President of two start-up companies stemming from her university activities (Hazard Management Systems Inc. and Joyful U Inc.) and as Associate Provost Fellow in the Office of the Provost, where she helped lead the campus sustainability initiative. Dr. Minsker has research interests in environmental systems analysis, investigating improved methods for analyzing coupled human and natural systems (including real-time drought and stormwater management; adaptive observation in lakes, estuaries, and watersheds; and green stormwater infrastructure design) so that informed management decisions can be made under conditions of uncertainty. Her major research funding sources have been the National Science Foundation, Department of Energy, Army Research Office, Metropolitan Water Reclamation District of Greater Chicago, Illinois-Indiana Sea Grant, John Deere Inc., ADM Inc., and Microsoft Research Inc. Dr. Minsker's research has been recognized by the National Science Foundation (CAREER Award), the Army Research Office (Army Young Investigator Award and Presidential Early Career Award for Scientists and Engineers), the American Society for Civil Engineers (Walter L. Huber Civil Engineering Research Prize, Outstanding Achievement Award, and Service to the Profession Award), Japan Society for the Promotion of Science (Fellow), the Committee on Institutional Cooperation (Fellow, Academic Leadership Program), and the University of Illinois (Fellow, Center for Advanced Study; Xerox Award for Faculty Research; and University Scholar). Dr. Minsker has served as expert advisor to the Environmental Protection Agency and National Science Foundation and on expert review panels for the Department of Energy and the Consortium of Universities for the Advancement of Hydrologic Sciences Inc. She also served on the Advisory Council for the Department of Civil and Environmental Engineering at Cornell University. She has been an invited participant in twelve National Science Foundation workshops to define national research needs related to the environment.

Neuberger, John

University of Kansas

Dr. John S. Neuberger is a Professor in the Department of Preventive Medicine and Public Health at the University of Kansas School of Medicine in Kansas City, Kansas. He teaches the required core course in Environmental Health and elective courses in Cancer Epidemiology and Public Health Grand Rounds in our accredited MPH degree program. He is also a co-instructor in a new Introduction to Public Health course. He holds a BME from Cornell University, an MBA from Columbia University, and an MPH and Dr.PH. from Johns Hopkins University (concentration in Environmental Health Sciences). Prior to joining the University of Kansas, and while working on his doctoral dissertation at Johns Hopkins, he held an appointment at the Mt. Sinai Environmental Sciences Laboratory (ESL) in New York City under the direction of Dr. Irving Selikoff, where he focused on asbestos related exposures and diseases with Dr. William Nicholson. He was also involved in the ESL's investigation of PBB exposure in Michigan. His research interests are currently in the area of Environmental Epidemiology, with a focus in environmental causes of disease, particularly in the specialty areas of residential radon exposure and lung cancer, cancer clusters, brain cancer clusters, brain cancer risk factors, health problems at a heavy metal mining Superfund site, cancer clusters near hazardous waste incinerators, trends in lung cancer and cigarette smoking, and residential radon exposure and Multiple Sclerosis. Dr. Neuberger's research has been funded internally by the University of Kansas and externally by the U.S. Environmental Protection Agency, the U.S. National Institutes of Health, the Agency for Toxic Substances and Disease Registry, the U.S. Department of Housing and Urban Development, the National Multiple Sclerosis Society, Jackson County, Missouri, Bayer Crop Science (with Dr. John Doull), the Kansas Health Foundation, and the Kansas Department of Health and Environment. Dr. Neuberger has served on two EPA Science Advisory Board Committees, one concerning the Total Coliform Rule and the other concerning asbestos exposure in Libby, Montana. He has been very active in local and national service activities, including testimony to the Kansas legislature and other organizations concerning both the safety and effectiveness of optimal fluoridation of drinking water and the health effects of exposure to second hand smoke. He has also represented the Epidemiology section of the American Public Health Association (APHA) to the Governing Council of APHA. He is on the Board of the Society for Environmental Geochemistry and Health and serves on the Environmental Advisory Council of Overland Park, Kansas.

Oerther, Daniel

Missouri University of Science and Technology

Dr. Daniel Oerther is the Mathes Chair of Environmental Health Engineering at the Missouri University of Science and Technology. A licensed Professional Engineer, he is Board Certified in Environmental Engineering. He is the author of more than 300 scientific publications. His scholarship includes environmental biotechnologies to quantify microbes in sewage treatment, watershed protection, and health settings. Dr. Oerther employs social entrepreneurship using information technologies to improve citizen-science and promote global development as part of the United Nations Sustainable Development Goals post 2015. He has developed award-winning graduate and practitioner educational materials in environmental biotechnology, and he leads university wide development of sustainability curricula and experiential student learning. The quality of his work has been recognized by the National Science Foundation (through the CAREER award), the Department of State (through three Fulbright fellowships, and the Jefferson Science Fellowship), the American Academy of Environmental Engineers and Scientists (through the Excellence in Environmental Engineering University Research Honor Award, and the Excellence in Environmental Engineering Educator Award), and Sigma Theta Tau the International Honor Society of Nursing (through induction as a lifetime honorary member, and appointment to the Presidential Task Force on the UN). He has won teaching awards from the Association of Environmental Engineering and Science Professors, the American Society for Engineering Education, and the National Academy of Engineering. Dr. Oerther received his B.A. in Biochemistry and his B.S. in Environmental Engineering, both from Northwestern University. His M.S. and Ph.D. degrees in Environmental Engineering were awarded from the University of Illinois, Urbana. He has completed graduate training in microbial ecology (at the Marine Biology Laboratory), public health (at The Johns Hopkins University), and public administration (at Indiana University, Bloomington). He has held tenured faculty appointments at the University of Cincinnati and the Missouri S&T, and visiting faculty appointments at the Indian Institute of Science, Manipal University, and Sardar Patel University (all within India); as well as at the Federal University of Western Para (in Brazil). Dr. Oerther's research is supported by the EPA (for tracking infectious and emerging microbes), the National Science Foundation (for development of bio detection in sewage treatment), the US Geological Survey (for environmental monitoring of watersheds), and the National Institutes of Health (for new techniques to identify viable micro organisms). His research in social entrepreneurship and development has been funded through public-private partnerships including domestic and international governmental and non-governmental organizations.

Opaluch, James

University of Rhode Island

Dr. James Opaluch is Professor and Department Chair of Environmental Economics at the University of Rhode Island. He received a Ph.D. in Natural Resource Economics and Masters Degree in Statistics both from the University of California, Berkeley. Dr. Opaluch has been actively involved in issues related to natural resource and environmental policy for many years, and is an internationally recognized expert in natural resource valuation and damage assessment. Dr. Opaluch currently serves on the US EPA Science Advisory Board. He has served as an expert in over 25 major natural resource damage assessment cases. Other projects include development of the original Type A model for assessing natural resource damages under CERCLA (incorporated in Federal Regulations); evaluation of the potential social costs of the national five-year offshore oil and gas leasing program; a comprehensive assessment of alternative bidding systems for auctions for offshore oil; development of a methodology for landfill siting for the state of Rhode Island, and estimating uses and values of the Peconic Estuary System as part of the National Estuaries Program. Dr Opaluch was invited to serve on the United Nations Environmental Program's Working Group of Consultative Experts to provide advice and training to policy professionals throughout the world. Dr. Opaluch has served on a

number of national committees, including panels for the National Academy of Science, National Science Foundation, the United Nations, the US EPA and the United States Minerals Management Service. He also served on as executive officer and in an editorial capacity for many National and International Professional Associations. Dr. Opaluch has authored or co-authored numerous papers in peer reviewed, professional journals. Dr. Opaluch has ongoing research grants on managing ecosystem services funded by the U.S. Department of Agriculture, and siting renewable energy facilities, funded by the State of Rhode Island.

Paulson, Jerome

George Washington University School of Medicine and Health Sciences

Jerome A. Paulson, MD is a Professor of Pediatrics at the George Washington (GW) University School of Medicine & Health Sciences, and Professor of Environmental & Occupational Health at the GW Milken Institute School of Public Health. He is the Medical Director for National & Global Affairs of the Children's Health Advocacy Institute at the Children's National Health System and the director of the Mid-Atlantic Center for Children's Health and the Environment (MACCHE). He holds a B.S. in Biochemistry from the University of Maryland, and an M.D. from Duke University. Dr. Paulson is the chair of the Executive Committee of the American Academy of Pediatrics' Council on Environmental Health and recently completed 6 years as a member of the Children's Health Protection Advisory Committee for the U.S. Environmental Protection Agency (EPA). Dr Paulson served on the Pediatric Medical Care Committee of the National Commission on Children and Disasters and was part of the National Conversation on Public Health and Chemical Exposures organized by the Agency for Toxic Substances and Disease Registry (ATSDR). Dr Paulson was elected to the American Pediatric Society primarily on the basis of is work in public policy and advocacy. In October 2004 he was a Dozor Visiting Professor at Ben Gurion University in Beer Sheva, Israel. He lectured there and throughout Israel on children's environmental health. Dr. Paulson was a recipient of a Soros Advocacy Fellowship for Physicians from the Open Society Institute and worked with the Children's Environmental Health Network. He also served as a special assistant to the director of the National Center on Environmental Health of the Centers for Disease Control and Prevention working on children's environmental health issues. He was a Robert Wood Johnson Health Policy Fellow and worked for a year on Capitol Hill for a member of the US House of Representatives. Dr. Paulson served on the American Academy of Pediatrics Council on Government Affairs and chaired the Public Policy Committee of the Ambulatory Pediatric Association (now the Academic Pediatric Association). He has published on a number of topics related to children's health and the environment and has served on numerous boards and committees related to children's environmental health. Dr Paulson receives no research support; MACCHE is funded through a collaborative agreement between the ATSDR and the Association of Occupational and Environmental Clinics with supplemental funding from EPA.

Portnoy, Jay

Children's Mercy Hospitals & Clinics

Dr Jay Portnoy is the Director, Division of Allergy, Asthma & Immunology at Children's Mercy Hospitals & Clinics in Kansas City, Missouri and Professor of Pediatrics at the University of Missouri-Kansas City School of Medicine. He received his medical degree at the University of Missouri-Columbia School of Medicine and he did his pediatric residency at the Children's Mercy Hospital in Kansas City and his Allergy fellowship at the University of Michigan in Ann Arbor. Following that he returned to Children's Mercy Hospital. Dr. Portnoy has published numerous articles in peer-reviewed journals involving asthma disease management, environmental control and mold allergy. More recently he has been involved in evidence-based medicine and he is co-chair of the Joint Taskforce on Practice Parameters. He recently lead a workgroup to develop evidence-based practice guidelines related to environmental assessment and interventions and has long been a proponent of home assessments as a standard medical approach to treating patients with respiratory conditions. Dr. Portnoy served as President of the American College of Allergy, Asthma & Immunology in 2008 and he currently serves on numerous committees both of the American College and the American Academy of Allergy, Asthma & Immunology as well as being vice-chair of the Allergy/Immunology Residency Review Committee of the ACGME and MOC vice-chair of the American Board of Allergy and Immunology.

Richardson, David B.

University of North Carolina

Dr. David B. Richardson is Associate Professor of Epidemiology in the School of Public Health at the University of North Carolina at Chapel Hill. His research focuses on the health effects of occupational and environmental exposures, particularly with regards to ionizing radiation. He has conducted studies of cancer among nuclear workers at several U.S. Department of Energy facilities, as well as studied cancer among the Japanese survivors of the atomic bombings of Hiroshima and Nagasaki. He has served as a visiting scientist at the World Health Organization's International Agency for Research on Cancer in Lyon, France and at the Radiation Effects Research Foundation in Hiroshima, Japan. Since 2007, he has served as Director of the National Institute of Occupational Safety and Health-funded training program in occupational epidemiology at the University of North Carolina-Chapel Hill. In addition, he is a core faculty member at the Injury Prevention Research Center at the University of North Carolina, and a member of the Exposure and Biomarkers Research Core at the University's Center for Environmental Health and Susceptibility. He is an Associate Editor of the journals Occupational and Environmental Medicine, American Journal of Epidemiology and Environmental Health Perspectives, is a member of the President's Advisory Board on Radiation and Worker Health, and recently served on the Institute of Medicine's Committee on Review of the Department of Labor's Site Exposure Matrix Database. Dr. Richardson's current research includes studies of mortality among workers in the nuclear industry and development of innovative methods for occupational cancer studies. These research activities are supported by grants from the National Institute for Occupational Safety and Health, and the National Cancer Institute. Dr. Richardson received a Ph.D. and M.S.P.H., both in epidemiology, from the University of North Carolina.

Riemer, Nicole

University of Illinois at Urbana-Champaign

Dr. Nicole Riemer is an Assistant Professor at the Department of Atmospheric Sciences at the University of Illinois at Urbana-Champaign. She received her doctorat degree from the University of Karlsruhe, Germany. Her research focus is the development of computer simulations that describe how aerosol particles are created, transported, and transformed in the atmosphere. Her group uses these simulations, together with observational and satellite data, to understand how aerosol particles impact human health, weather, and climate. This understanding guides the development of effective pollution mitigation strategies and responses to global climate change. Dr. Riemer is a member of the German National Academic Foundation and has received the NSF CAREER award. She was designated as the 2014-2015 I. C. Gunsalus Scholar. She held the position of editor for the journal Atmospheric Chemistry and Physics, and is an editor for Aerosol Science and Technology. She has served on several review panels for the EPA SBIR program, for NASA, and for the NSF. Dr. Riemer served as chair for Aerosol Chemistry Working Group for American Association of Aerosol Research and is a member of the International Commission on Atmospheric Chemistry and Global Pollution. Most recently, she served on the advisory panel for the Environmental Molecular Sciences Laboratory (EMSL) Atmospheric Aerosol Systems Science Theme at the Pacific Northwest National Laboratory. Dr. Riemer's funding sources for the last two years have been NSF (for developing particle-resolved models for investigating aerosol-cloud interactions and for coarse-graining and multiscale analysis of stochastic particle-resolved aerosol models), NOAA (for integrating model simulations with field observations of night-time chemistry during CalNex 2010), NASA (for developing methods to account for subgrid mixing and spatial gradients in global aerosol models), DOE (for quantifying and accounting for the importance of aerosol mixing state) and EPA (for particle-resolved simulations for quantifying black carbon impact and model uncertainty).

Rubin, Jonathan

The University of Maine

Dr. Jonathan Rubin is a Professor in the Margaret Chase Smith Policy Center and the School of Economics at the University of Maine. He specializes in the economics of energy, light-duty transportation, greenhouse gas emissions and alternative fuels. His research investigates low carbon transportation fuels, biofuel pathways, and the potential economic and environmental impacts from trading greenhouse gases and fuel efficiency credits for automobiles and light-duty trucks. He is the author of numerous (50+) journal articles, book chapters, books and other publications and has presented his work across the US and internationally. He is the Chair of the Environment and Energy Section (ADC00) of US Transportation Research Board of the National Academies (TRB). From 2008-2014 he was the Chair of the Committee on Transportation Energy, TRB. He has been an advisory panel member, Airport Cooperative Research Program 02-56 (developing an airport business case for renewable energy), S02-02 (sustainable facilities and practices), and the National Cooperative Highway Research Program 25-35 (guidebook for designing and managing rights-of-way for carbon sequestration and biomass generation) and 25-25 (feasibility study of using solar or wind power for transportation infrastructure). Dr. Rubin received his Ph.D. in Agricultural Economics from the University of California, Davis. He was a Fulbright Scholar, Clean Energy Research Centre, University of Botswana and a Visiting Fellow, Cambridge Centre for Climate Change Mitigation Research, Department of Land Economy, University of Cambridge. Dr Rubin's research is supported by the National Science Foundation (integrated national framework for cellulosic drop in biofuels), the US Environmental Protection Agency (tradable fuel economy credits for cars and light trucks), the US Department of Energy (flexible greenhouse gas emission banking systems), the Energy Foundation (design and analysis of a US low carbon fuel standard), The Economic & Social Research Council - Social Science Research Council (United Kingdom) and others including NGOs and state and regional organizations.

Shaw, W. Douglass

Texas A&M university

Dr. W. Douglass Shaw is a tenured full professor at Texas A&M University, where he has been since 2004. He is a member of the Dept. of Agricultural Economics and a Research Fellow at A&M's Hazard Reduction and Recovery Center, an internationally known center in the area of natural hazards research. His specialty is incorporating risks and risk perceptions into models of behavior, often in the context of non-market valuation. He has more than 30 years of experience in valuation and has published over 80 articles, book chapters, or books. He has served on an advisory board for the state of Oregon (climate change), and was recently on a Blue Ribbon panel for NOAA. He has been a reviewer for U.S. EPA on several occasions, often in the context of drinking water regulations, but also on air quality regulations.

Shubat, Pamela

Minnesota Department of Health

Dr. Pamela Shubat supervises the work of the Health Risk Assessment Unit of the Minnesota Department of Health Environmental Health Division. Pam has worked in the department for twenty-five years in many areas of risk assessment, toxicology, and exposure assessment. Her major responsibilities over the years have included research on fish contaminants and developing state fish consumption advisories; childhood lead poisoning prevention; population-based exposure assessment; rules for groundwater contaminants, and developing a drinking water contaminants of emerging concern program. She was the principal investigator for a state component of the EPA National Human Exposure Assessment Survey (the Minnesota Children's Pesticide Exposure Study) and for a study on using environmental economics for children's environmental health valuation. She currently supervises the work of developing risk

assessment methods that take into account life stage susceptibility and other evolving risk assessment considerations and applying new methods to drinking water rules and contaminants of emerging concern. She has served as a member and chair of the EPA Children's Health Protection Advisory Committee and as a peer reviewer for EPA projects involving methylmercury, polychlorinated biphenyls, and risk assessment practice. Pam has been a member of the Society of Toxicology since 1989 and a member of the International Society for Exposure Analysis since 1996, serving as councilor from 2002-2005. She is also a member of the EPA Federal-State Toxicology Risk Analysis Committee. Pam received a received a Ph.D. in Pharmacology and Toxicology from the University of Arizona in 1988, an M.S. in Fisheries and Wildlife from Oregon State University, and a B.S. in biology from the University of Minnesota, Duluth. She does not have any recent sources of grants.

Smith, V. Kerry

Arizona State University

As of May 25, 2014 Dr. V. Kerry Smith is an Emeritus University Professor of Economics and Emeritus Regents Professor at Arizona State University (ASU). Prior to his retirement, he served as a Regents Professor and W.P. Carey Professor of Economics. He came to ASU in 2006 after serving as University Distinguished Professor and Director, Center for Environmental and Resource Economic Policy in the Department of Agricultural and Resource Economics at North Carolina State University. He is currently a University Fellow at Resources for the Future and a Research Associate with the National Bureau of Economic Research. Dr. Smith received his A.B. and Ph.D. in Economics from Rutgers University. He presented the Frederick V. Waugh Lecture for the American Agricultural Economics Association (AAEA) in 1992 and at the 2002 AAEA annual meeting he was named an AAEA Fellow. In 2004 he was elected a member of the National Academy of Sciences. He is also a Fellow of the Association of Environmental and Resource Economists. Dr. Smith is a member of the American Economic Association, the Southern Economic Association, the Association of Environmental and Resource Economists, and several other professional associations. He has also held editorial positions with the Journal of the Association of Environmental and Resource Economists, the Journal of Environmental Economics and Management, Land Economics, Review of Economics and Statistics, and other professional journals. His research interests include non-market valuation of environmental resources, role of public information in promoting private risk mitigation, the linking of ecological and economic models, general equilibrium modeling and welfare analysis for market and nonmarket resources.

Solomon, Gina

California Environmental Protection Agency

Gina Solomon, M.D., M.P.H. is the Deputy Secretary for Science and Health at the California Environmental Protection Agency. She is also a clinical professor in the Division of Occupational and Environmental Medicine at the University of California, San Francisco (UCSF). Dr. Solomon previously served as a Senior Scientist at the Natural Resources Defense Council; as the director of the occupational and environmental medicine residency program at UCSF; and as the associate director of the UCSF Pediatric Environmental Health Specialty Unit. She has served on the EPA Chartered Science Advisory Board since 2011 as well as on the Drinking Water Committee from 2004-2010. She also serves on the National Research Council (NRC) Board of Environmental Studies and Toxicology, and was previously on two other NRC committees, on the National Toxicology Program's Board of Scientific Counselors and on the California Biomonitoring Scientific Guidance Panel. She has authored about 50 peer-reviewed articles, a book published by the Massachusetts Institute of Technology Press, numerous reports, and chapters in several textbooks. Dr. Solomon's work has included research on diesel exhaust and asthma, endocrine disrupting chemicals, pesticides, environmental contaminants in New Orleans after Hurricane Katrina, the health implications of the 2010 Gulf oil spill, and the health effects of climate change. Dr. Solomon received her bachelor's degree from Brown University, a doctorate of medicine from the Yale University School of Medicine, and a master's degree in public health from the Harvard School of Public Health. She is board-certified in both internal medicine and occupational and environmental medicine, and is licensed to practice medicine in California.

Stram, Daniel O.

University of Southern California

Dr. Daniel Stram is Professor of Biostatistics at the University of Southern California Keck School of Medicine. His work has focused upon developing and applying modern biostatistical methods to a wide variety of epidemiological, and clinical studies, including large scale studies of the genetics of adult cancers, and studies of the risk of cancer and other diseases in relation to radiation exposure. His research interests include measurement error analysis, meta-analysis, longitudinal modeling, association-based studies of genetic susceptibility to cancer, and general exposure-response modeling in cancer epidemiology. He is currently the senior biostatistician for many of the genetic studies taking place at the University of Southern California, and is a lead investigator for statistical analysis of a large cohort of former workers in Russia who were occupationally exposed to radiation during the production of plutonium. He has contributed to the statistical design and/or analysis of numerous prospective cohort studies including the Six Cities Study, the Atomic Bomb Survivors Study, the Chinese Singapore Health Study, the Colorado Plateau Uranium Miners Study, the California Teachers Study, and the Multiethnic Cohort Study. Dr. Stram received his B.A. degree in Mathematics with distinction from Tufts University. His PhD degree in Applied Statistics is from Temple University, and he performed postdoctoral work in biostatistics at the Harvard University School of Public Health. Dr. Stram worked for the Radiation Effects Research Foundation in Japan for 3 years studying the health of the atomic bomb survivors, and was a visiting faculty member for 6 months at the Whitehead Institute of Harvard and MIT, involved in the development of methods for the statistical analysis of large scale genetics data. Dr. Stram's work is supported by the National Institutes of Health and the Department of Energy. He has served on numerous committees and review groups sponsored by the National Institutes of Health, the Environmental Protection Agency (EPA), and the National Academy of Sciences (NAS). He is currently a member of the Nuclear and Radiation Studies Board of the NAS, and served as chair of the EPA's Radiation Advisory Committee. Dr. Stram teaches regularly within the

graduate program of the Biostatistics Division of the University. He is the author of over 200 papers, several book chapters, and of a recent book on the statistical design and analysis of genetic association studies.

Thorne, Peter S.

University of Iowa

Dr. Peter S. Thorne is Professor of Toxicology and Head of the Department of Occupational and Environmental Health at the University of Iowa, College of Public Health. He holds a secondary appointment as Professor of Civil and Environmental Engineering. Dr. Thorne is Associate Director and co-founder of the Interdisciplinary Graduate Program in Human Toxicology. He received a BS in chemical engineering, MS in biomedical engineering and PhD in toxicology from the University of Wisconsin-Madison and completed post-doctoral training in immunotoxicology at the University of Pittsburgh. Since 2001 he has served as Director of the NIH-funded Environmental Health Sciences Research Center. Dr. Thorne directs a major community-based research project and the Inhalation Toxicology Core for the Iowa Superfund Research Program. He has been continuously funded by NIH for over two decades and runs a productive research laboratory engaging his students in studies of environmental risk factors for asthma, health effects of inhaled air pollutants, inflammatory lung diseases, endotoxin-induced immunomodulation, nanotoxicology and novel methodology for exposure assessment to airborne toxicants. Dr. Thorne has authored 200 peer-reviewed papers and book chapters. He teaches graduate level courses on environmental health and human toxicology and has mentored 75 MS, PhD and Postdoctoral trainees. Dr. Thorne has served on a wide variety of editorial and review boards for scientific journals, government agencies, and academia and regularly chairs grant reviews for NIH. From 2003 to 2006, he served on the NIH National Advisory Environmental Health Sciences Council. He is the recipient of the Thomas Bedford Memorial Prize from the British Occupational Hygiene Society, the John Doull Award from the Society of Toxicology (Central States Chapter) and was the 2003 Whitehead Memorial Lecturer at the Children's Hospital of Pittsburgh.

van Wijngaarden, Edwin

University of Rochester

Dr. Edwin van Wijngaarden is Associate Professor of Public Health Sciences, Environmental Medicine, Pediatrics and Dentistry at the University of Rochester School of Medicine and Dentistry, Rochester, NY. He is Chief of the Division of Epidemiology and Director of the Doctoral Program in Epidemiology. Dr. van Wijngaarden received an MSc in Environmental Sciences from Wageningen University in The Netherlands, and a PhD in Epidemiology from University of North Carolina at Chapel Hill. Dr. van Wijngaarden has extensive experience in managing and conducting epidemiologic studies and in academic leadership. He has authored over 80 peer-reviewed manuscripts primarily in the areas of environmental and occupational health. For the past 15 years, his research has focused on the potential effects of exposure to metals and pesticides on nervous system outcomes in children and older adults, including behavioral and cognitive development, mental disorders, and dementia and related disorders. Dr. van Wijngaarden is a member of the American College of Epidemiology (ACE) and Society for Epidemiologic Research (SER). He is an Associate Editor for the scientific journal Neurotoxicology and serves on the editorial board of International Archives of Occupational and Environmental Health. Dr. van Wijngaarden is currently a member of the Publications Committee of ACE, and has served as peer reviewer for more than 30 scientific journals. He was a Scientist Reviewer for NIOSH NORA Peer Review, Panel C (Epidemiology and Surveillance) and an external peer reviewer of the NIOSH Criteria Document Update: Occupational Exposure to Hexavalent Chromium (NIOSH Docket Number 144). He has also served on several NIH study sections (ZES1 LKB-K (P0), ZRG1 PSE-Q (02)). His work has been supported by the National Institutes of Health and the Centers for Disease Control and Prevention.

Weber, Elke

Columbia University

Dr. Elke Weber is the Jerome A. Chazen Professor of International Business, Professor of Management and Psychology, and Earth Institute Professor at Columbia University. She is an expert on descriptive models of decision-making under uncertainty and time delay in financial and environmental contexts. At Columbia, she founded and co-directs the Center for Decision Sciences, which generates and facilitates interdisciplinary decision research relevant to the needs of real world decision makers, and the Center for Research on Environmental Decisions, which investigates ways of facilitating human responses to climate change and climate variability and has published a widely-used Climate Change Communications Guide (cred.columbia.edu/Guide). She is the author of over 130 papers and multiple books and project reports. Her expertise in the decision sciences has been sought out by several advisory committees of the National Academy of Sciences on human dimensions in global change. She served on the American Psychological Association Task Force that issued a report on the Interface between Psychology and Global Climate Change, and was a lead author in Working Group III for the 5th Assessment Report of the U.N. Intergovernmental Panel on Climate Change (IPCC). She is past president of the Society for Neuroeconomics, the Society for Judgment and Decision Making, and the Society for Mathematical Psychology. She is a fellow of the American Psychological Association, the Association for Psychological Science, the Society for Risk Analysis, and was elected to the German National Academy of Sciences. Dr. Weber received her B.A. degree in psychology (summa cum laude) from York University in Canada and her M.A. and Ph.D. degrees from Harvard in behavior and decision analysis. She has held academic positions at the University of Chicago, University of Illinois, and the Ohio State University and visiting appointments in Europe (London Business School, Copenhagen Business School, Fribourg University, Beisheim Graduate School of Corporate Management) and the USA (Princeton University and California Institute of Technology). She spent fellowship years at the Center for Advanced Studies in the Behavioral Sciences at Stanford, the Russell Sage Foundation, and the Wissenschaftskolleg in Berlin. The University of Basel awarded her an honorary doctorate for her work that differentiates the roles played by subjective perception of risk and risk

attitude in risk taking. Dr. Weber's research and her research centers have been supported continuously since 1986 by the National Science Foundation, the National Institute of Health, and other agencies and foundations.

Werth, Charles

University of Illinois at Urbana-Champaign

Dr. Charles J. Werth is a Professor and the Bettie Margaret Smith Chair of Environmental Health Engineering in the Department of Civil, Architecture and Environmental Engineering at the University of Texas at Austin, effective 8/1/2014. Previously, he was a Professor in Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign. Dr. Werth received a B.S. in Mechanical Engineering from Texas A&M University, an M.S. and Ph.D. in Environmental Engineering from Stanford University, and a Ph.D. minor in Chemistry from Stanford University. Dr. Werth's research and teaching focus on the fate and transport of toxic chemicals in sediments, soil and groundwater, and the development of sustainable technologies such as catalytic reduction for removing these chemicals from drinking water sources. In his research, he develops and/or uses noninvasive imaging, environmental microfluidics, nanotechnology, spectroscopic analysis, numerical modeling, and life cycle assessment. Dr. Werth has published 84 peer-reviewed journal articles. His research is currently supported by grants from both government agencies and private companies, with core research support from the federal government (Environmental Protection Agency (EPA), Department of Energy (DOE), U.S. Geological Survey (USGS), NASA, Sea Grant), and additional support from the Energy Bioscience Institute and King Abdullah University of Science and Technology. Dr. Werth presently serves on the US EPA's Science Advisory Board Environmental Engineering Committee, the US DOE's Environmental Molecular Science User Executive Committee, and the external advisory board of the US DOE Center for Frontiers of Subsurface Energy Security. He formerly served on the boards of the Association of Environmental Engineering and Science Professors (AEESP), and the AEESP Foundation. The quality of his work has been recognized by his appointment as a Wiley Research Fellow at the DOE's Environmental Molecular Science Laboratory, appointment as Editor-and-Chief of Journal of Contaminant Hydrology, an Editors Choice Best Paper Award from Environmental Science and Technology (2nd in the category of Technology), most cited paper recognition from Journal of Contaminant Hydrology, a Humboldt Research Fellow Award, a National Science Foundation CAREER Award, and a BP Award for Innovation in Undergraduate Instruction.

West, Sarah

Macalester College

Dr. Sarah E. West is Professor of Economics at Macalester College in Saint Paul, Minnesota. An environmental and public finance economist, she conducts research on policies for the reduction of gasoline consumption, focusing on how households weigh differing fuel economies when deciding what car or truck to buy. Her papers examine the efficiency and cost effectiveness of policies such as taxes, tradable permits, and standards for motor fuels, fuel economy, and carbon emissions, the equity implications of these policies, and the interactions between these policies and labor markets. Professor West also studies the value of open space in urban areas and the effect of public transit on land use. Dr. West's work has been published in leading academic journals in environmental economics and public finance. It has been funded by the Public Policy Institute of California (for analysis of the relative efficiency of alternative policies for the control of vehicle pollution), and the National Institutes of Health and the Robert Wood Johnson Foundation (for analysis of the fiscal and behavioral implications of taxes on alcohol). She won a teaching award at Macalester and has supervised many award-winning honors theses. Dr. West serves as Secretary of the Association of Environmental and Resource Economists, was a member of the Technical Assumptions Review Committee for the Low Carbon Fuels Policy Study for the Minnesota Department of Commerce Office of Energy Security, wrote background papers and participated in a Transportation Research Board symposium on distributional effects of transportation finance schemes at the National Academies of Science, and frequently gives workshops for academics and policymakers on vehicle emissions and fuel economy policies. She regularly reviews reports, journal article submissions, and grant proposals for a wide range of journals and government agencies. Dr. West graduated summa cum laude from Macalester College with a B.A. in International Studies and Spanish, received a Foreign Languages and Area Studies fellowship from the U.S. government to complete a M.A. in Latin American Studies at University of Texas at Austin, and received an M.S. and a Ph.D. in Economics, also from the University of Texas at Austin.

Wilson, Robyn

Ohio State University

Dr. Robyn Wilson is the Associate Professor of Risk Analysis and Decision Science in the School of Environment and Natural Resources at The Ohio State University. She is an author on 30 peer-reviewed journal articles, and several book chapters. Since beginning her academic career at Ohio State in 2007, her work has focused primarily on the interplay between intuitive and analytic information processing and the influence this has on risk perception and ultimately judgment or choice behavior. She is also interested in the development of communication efforts and decision support tools to inform decision making related to agricultural, environmental and public health risk management. Dr. Wilson is very active as a leader on campus and in her professional organizations as demonstrated by her service on several committees and advisory boards related to behavioral decision-making and environmental science. She serves on the Environmental Sciences Advisory Committee and the Data Analytics Faculty Advisory Council, both of which advise University administration. She is also a member of the Behavioral Decision Making Initiative, and the Environmental Policy Initiative Executive Board. Outside of the University, she has served as the Chair of the Risk Communication Specialty Group in the Society for Risk Analysis, and is a member of a foundations group at the National Socio-Ecological Synthesis Center focused on time scales and the interplay between human behavior and ecosystem dynamics. Dr. Wilson received her B.A. in Environmental Studies with Honors from Denison University, and her M.S. and Ph.D. degrees in Environment and Natural Resources from The Ohio State University. Dr. Wilson's research is supported by the NSF's Coupled Natural Human Systems program (for addressing whether or not changes in farmer behavior can offset the predicted negative impacts of climate change on the Great Lakes), the National Institutes of Food and Agriculture (for

farmer decision making as it relates to the management of herbicide resistance, antibiotic resistance and antimicrobial contamination), the USFWS Joint Fire Sciences Program (for assessing the decision making of managers charged with restoring landscapes in the context of environmental change), and the USDA Forest Service (for modeling the decisions of fire managers and households during a wildfire event).

Wright, Dawn Jeannine

Environmental Systems Research Institute (ESRI)

Dr. Dawn Wright was appointed Chief Scientist of the Environmental Systems Research Institute (ESRI) in October 2011. In this role, she aids in formulating and advancing the intellectual agenda for the environmental, conservation, climate, and ocean sciences aspect of Esri's work, while also representing Esri to the national/international scientific community. Dr. Wright also maintains an affiliated faculty appointment as Professor of Geography and Oceanography in the College of Earth, Ocean, and Atmospheric Sciences at Oregon State University. She has authored or co-authored more than 70 peer-reviewed papers and 8 books, and has participated in over 20 oceanographic research expeditions worldwide, including 3 dives in the Alvin submersible. For the past two decades her work has focused primarily on ocean and coastal geographic information systems and data management, marine spatial planning, environmental informatics, and ocean conservation. The quality of Dr. Wright's work has been recognized by the National Science Foundation (through the CAREER award), the American Association for the Advancement of Science (through designation as a Fellow), the Association of American Geographers (through the Distinguished Teaching Honors and Presidential Achievement Awards), Stanford University (as a Leopold Leadership Program Fellow), the University of California-Santa Barbara (through the Distinguished Alumni Award and as a commencement speaker), and Oregon State University (through the Milton Harris Award for Excellence in Basic Research). In 2007 the Council for the Advancement and Support of Education and the Carnegie Foundation named her U.S. Professor of the Year for the state of Oregon. Dr. Wright received her B.S. degree cum laude in Geology from Wheaton College (Illinois). Her M.S. degree in Oceanography was awarded by Texas A&M University. She received an Individual Interdisciplinary Ph.D. in Physical Geography and Marine Geology from the University of California-Santa Barbara. Dr. Wright was the recipient of early promotion and tenure at Oregon State University and held that tenured faculty appointment until 2013. Her research has been supported by the National Science Foundation (for seafloor mapping and geomorphological studies, computational infrastructures for coastal and ocean data, increasing diversity in Earth sciences, and geospatial ethics curricula development); the Office of Naval Research (for developing a marine mammal genetics geographic information system); the National Oceanic & Atmospheric Administration (for geospatial analytical and decision-support tool development and benthic habitat mapping); and the Bureau of Ocean Energy Management (for identification of outer continental shelf renewable energy space-use conflicts, with associated GIS data and maps).

Zycher, Benjamin

American Enterprise Institute

Benjamin Zycher is the John G. Searle scholar at the American Enterprise Institute, a senior fellow at the Pacific Research Institute, and a member of the advisory board of the quarterly journal Regulation. He is a former associate in the Intelligence Community Associates program of the Office of Economic Research, Bureau of Intelligence and Research, U.S. Department of State, a former senior fellow at the Manhattan Institute for Policy Research, a former senior economist at the RAND Corporation, a former member of the Board of Directors of the Western Economic Association International, a former adjunct professor of economics at the University of California, Los Angeles, a former adjunct professor of economics and business in the MBA program at the California State University, Channel Islands, a former vice president for research at the Milken Institute, the founding editor of the quarterly public policy journal Jobs & Capital, a former senior staff economist at the President's Council of Economic Advisers, and a former member of the advisory board of Consumer Alert. He holds a Ph.D. in economics from the University of California Los Angeles and a Master of Public Policy from the University of California Berkeley. He has done considerable work on energy and environmental policy, on health care policy and the economics of the pharmaceutical sector, on the economics of the insurance sector, and on such varying topics in international economics as counterterrorism policy, resource dependence, and the risk of "shocks." He has done a substantial amount of work as well on the economic and political effects of government regulation, taxation, spending, and debt, on benefit/cost analysis of public expenditures, on the effects of economic institutions and performance upon economic growth and resource use, on long-term trends in economic performance and military capability, on the use of trade policy in pursuit of foreign policy goals, and on measures of burden sharing within alliances. Over the past two years, he has received funding from: the American Enterprise Institute; the Pacific Research Institute; the Cato Institute; The George Foundation; the Philanthropy Roundtable; Shawn Steel and Associates; the Law Office of William Houser; Fraser Institute; and the Exelon Corporation.