

**Invitation for Public Comment on the List of Candidates
For the Environmental Protection Agency's
Clean Air Scientific Advisory Committee**

June 12, 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 Clean Air Scientific Advisory Committee (CASAC). The CASAC provides independent advice to the EPA Administrator on the technical bases for EPA's national ambient air quality standards. For CASAC, the SAB Staff Office sought nominations of physicians, members of the National Academy of Sciences, and experts who have demonstrated experience in one or more of the following disciplines related to air pollution: atmospheric sciences, ecological and welfare effects, engineering, health sciences, medicine, public health, modeling, and/or risk assessment.

The SAB Staff Office received nominations for the attached 17 candidates based on their expertise and willingness to serve. We hereby invite public comments on the attached List of Candidates for appointment or reappointment for consideration by the SAB Staff Office in the formation of this Committee. Comments should be submitted to Mr. Aaron Yeow, Designated Federal Officer, no later than July 7, 2014 at yeow.aaron@epa.gov. E-mail is the preferred mode of receipt. Please be advised that public comments are subject to release under the Freedom of Information Act.

CASAC

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>).

Balmes, John R.

University of California

Dr. John Balmes is a Professor of Medicine at the University of California, San Francisco (UCSF) where he is the Chief of the Division of Occupational and Environmental Medicine at San Francisco General Hospital (SFGH), Director of the Human Exposure Laboratory of the Lung Biology Center, and the Principal Investigator of the UCSF Pediatric Environmental Health Specialty Unit. He is also Professor of Environmental Health Sciences at the University of California, Berkeley where he is the Director of the Northern California Center for Occupational and Environmental Health. Dr. Balmes received his BA from the University of Illinois (Urbana) in 1972. He received his MD from the Mount Sinai School of Medicine of the City University of New York in 1976. He completed a Residency in Internal Medicine at the Mount Sinai Hospital at New York City in 1979 and a fellowship in Pulmonary Medicine with additional training in occupational medicine at Yale University School of Medicine in 1982. He is board-certified in Internal Medicine and Pulmonary Medicine and actively practices pulmonary and critical care medicine at SFGH. Dr. Balmes leads a research program involving the respiratory effects of ambient air pollutants. In his laboratory at UCSF, he conducts controlled human exposure studies of the acute effects of ozone and other pollutants. At UC Berkeley, he collaborates in epidemiological studies of the chronic effects of air pollutants. He has published over 200 papers or chapters on occupational and environmental respiratory disease-related topics with many of these dealing with the potential health effects of ambient air pollutants, especially ozone. Dr. Balmes' expertise in the health effects of ambient air pollutants has been recognized by multiple awards including the following: an Environmental/Occupational Medicine Academic Award from the National Institute of Environmental Health Science (1991-1996); the Clean Air Research Award from the American Lung Association of San Francisco and San Mateo in 1997; and the Clean Air Award from the American Lung Association of California in 1999; the Carl Moyer Award for Scientific Leadership and Technical Excellence from the Coalition for Clean Air in 2006; and the Robert M. Zweig Memorial Award for Outstanding Contributions in Air Pollution Health Effects Research, South Coast Air Quality Management District. He also has been received two lifetime achievement awards in the field of occupational and environmental medicine, the Robert A. Kehoe Award of Merit from the American College of Occupational and Environmental Medicine in 2006 and the Rutherford T. Johnstone Award from the Western Occupational and Environmental Medical Association in 2010. Dr. Balmes served as a member of the Research Screening Committee of the California Air Resources Board (CARB) from 1998-2007 and was a member of the Air Quality Advisory Committee of the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency from 1992-2004. He has served the U.S. Environmental Protection Agency in many capacities. In 1992, he served on the Clean Air Scientific Advisory Committee (CASAC) Oxides of Nitrogen Review Panel and was invited to participate in a Workshop on Health Issues on Air Quality Criteria for Ozone and Related Photochemical Oxidants. He contributed to the writing of the Air Quality Criteria Document for Ozone in 1993-1994. He was a Consultant Reviewer of the Air Quality Criteria Document for Particulate Matter in 1995, was invited to participate in a Workshop on Asthma and the Environment in 1996, and was a Consultant Reviewer of the Air Quality Criteria Document for Ozone in 2003. He served on the CASAC Review Panel for Ozone in 2005-2007 and again when it was re-impaneled in 2010. He also served on the Nitrogen Oxides/Sulfur Oxides Review Panel in 2007-2010. In addition, he served as a consultant advisor regarding epidemiologic research on the health effects of ozone to the Health Effects Institute from 1990-1992. Dr. Balmes is currently studying the effects of ambient air pollution on the health of children in the San Joaquin Valley of California through his participation in a Children's Environmental Health Center that is co-funded by the National Institute of Environmental Health Sciences and the U.S. EPA. He is funded to study the acute cardiovascular effects of ozone in a multi-center controlled human exposure study funded by the Health Effects Institute. He is also funded to study the associations between PM2.5 and hospitalizations for cardiovascular disease and between PM2.5 and biomarkers of risk for cardiovascular disease by the Center for Disease Control. He is the Principal Investigator of the Northern California Education and Research Center, a program to train occupational health and safety professionals that is supported by the National Institute for Occupational Safety and Health. Dr. Balmes is a consultant editor for the Archives of Environmental Health and is an active reviewer for multiple clinical and environmental health journals, including the New England Journal of Medicine, Journal of the American Medical Association, the American Journal of Respiratory and Critical Care Medicine, the European Respiratory Journal, Occupational and Environmental Medicine, and Environmental Health Perspectives. Dr. Balmes is a member of multiple professional societies and organizations, including the American and California Thoracic Societies, the American College of Chest Physicians, the American College of Occupational and Environmental Medicine, the Society for Occupational and Environmental Health, and the International Society for Environmental Epidemiology. He was Chair of the Environmental and Occupational Health Scientific Assembly of the American Thoracic Society in 1997-1999 and President of the California Thoracic Society in 2001-2002. In December 2007, he was appointed by Governor Schwarzenegger to be the physician member of the California Air Resources Board, a position he continues to hold.

Cicutto, Lisa

Colorado School of Public Health

Dr. Cicutto directs the Clinical Science Graduate Program at the University of Colorado Denver and is currently the Director of Community Outreach and Research at National Jewish Health and Co-Director of the Community Outreach and Translation Core of the Denver Children's Environmental Health Center funded by the NIEHS and the EPA. In her role, she is dedicated to reducing the lung health burden of communities through the translation and uptake of the best available research and evidence. She has over 20 years of experience working in community settings, primarily schools, child care settings and homes to develop, implement and evaluate programs that are responsive to community needs while being evidence-based and supportive of the partnerships that are often needed with health care providers. One of the school based asthma education programs that she led the development, implementation and evaluation of is now a mandated program in Ontario Public Health. She has always had a passion and interest in the link between environment and health. When she was completing her doctoral studies at the University of Toronto her interest and expertise in the area got her an invitation to be a Teaching Assistant for the Environmental Health course in the Environmental Studies Program at the University, of which she subsequently became the Course Instructor. Because of her expertise in asthma and allergies, she is often consulted on issues related to environmental exposures (indoor and outdoor) and asthma, allergies and other pulmonary conditions. Not only is she involved in and leading rigorous research in the area, she is fully committed to the translation of the research into community. To prepare her for her interests and variety of roles, she has both training as a clinician and as a researcher. Her training as a clinician includes a Bachelors in Nursing, a certificate as an Acute Care Nurse Practitioner, and certification status as an asthma educator. Her research training includes a masters and PhD. In addition, serving on several advisory and expert panels for government, professional, and community organizations in Canada and the US has provided tremendous insight into policy development and priority setting.

Diez-Roux, Ana

Drexel University

Ana Diez Roux, M.D., Ph.D., is Professor of Epidemiology and Dean of the Drexel School of Public Health. Before joining Drexel she was Chair of Epidemiology and Director of the Center for Social Epidemiology and Population Health at the University of Michigan School of Public Health. Dr. Diez Roux has been an international leader in the investigation of the social determinants of health, the application of multilevel analysis in health research, and the study of neighborhood health effects. Her research areas include social epidemiology and health disparities, environmental health effects, urban health, psychosocial factors in health, and cardiovascular disease epidemiology. Recent areas of work include social environment-gene interactions and the use of complex systems approaches in population health. She has led large NIH and foundation funded research and training programs in the United States and in collaboration with various institutions in Latin America. She has been a member of the MacArthur Network on Socioeconomic Factors and Health and is a Co-Director of the Network on Inequality, Complexity and Health. Dr. Diez Roux has served on numerous review panels and advisory committees including most recently the Clean Air Scientific Advisory Committee (CASAC) of the Environmental Protection Agency, the Board of Scientific Counselors (BSC) of the National Center for Health Statistics, the Committee on Health and Wellbeing in the Changing Urban Environment of the International Council for Science (ISCUS) and the Editorial Board of the Annual Review of Public Health. She was awarded the Wade Hampton Frost Award for her contributions to public health by the American Public Health Association. She is an elected member of the American Epidemiological Society, the Academy of Behavioral Medicine Research, and the Institute of Medicine of the National Academy of Sciences. Dr. Diez Roux received an M.D. from the University of Buenos Aires, a master's degree in public health and doctorate in health policy from the Johns Hopkins School of Hygiene and Public Health.

Dozor, Allen

NY Medical College

Allen J. Dozor, M.D., is a graduate of the University of Pennsylvania, and received his medical degree from Pennsylvania State University. He did his pediatric pulmonary fellowship training at Children's Hospital in Boston and Harvard Medical School. He is board certified in both Pediatrics and Pediatric Pulmonology, and is a fellow of the American Academy of Pediatrics and the American College of Chest Physicians. Dr. Dozor is a Professor of Pediatrics and Clinical Public Health at New York Medical College in Valhalla, New York and is the Chief of Pediatric Pulmonology, Allergy & Sleep Medicine. He is Director of the Children's Environmental Health Center of the Hudson Valley, founded in 2008, (www.childrensenvironment.org) which has received funding from New York State and a variety of non-profit charitable foundations. Dr. Dozor divides his time between patient care, teaching and research in the field of respiratory illness in children. He lectures frequently and has published over 85 peer-reviewed scientific articles. He published a textbook on Pediatric Pulmonology (Primary Pediatric Pulmonology, Blackwell Publishing) designed for primary care physicians, and a guidebook for families of children with asthma and allergies (The Asthma and Allergy Action Plan for Kids, Simon and Shuster). Dr. Dozor's current research is primarily focused on the relationship between the environment and respiratory health of children, particularly on air quality and pulmonary function of children, particularly those with asthma. He has received funding from the NIH, Cystic Fibrosis Foundation, American Lung Association, and a variety of pharmaceutical sponsors for his asthma and cystic fibrosis research. He has served on a variety of committees at both the state and national level, and was an alternate member of CHPAC (Children's Health Protection Advisory Committee) of the US EPA from 2007 to 2012.

Frey, H. Christopher

North Carolina State University

Dr. H. Christopher Frey is a professor of environmental engineering in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University. His research interests are measurement and modeling of real-world fuel use and emissions of onroad and nonroad vehicles; modeling and evaluation of advanced energy conversion (e.g., combustion, gasification) and environmental control systems; development and application of methods for quantification of variability and uncertainty and for sensitivity analysis in environmental systems models; and exposure and risk analysis. He has been the principal investigator or co-principal investigator for over 50 externally sponsored research projects, and has published over 90 journal papers, 150 conference papers, and 60 technical reports, and 7 book chapters and one book. He teaches courses in air pollution control, air quality, and environmental exposure and risk assessment. He currently serves on the U.S. Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC) and on the Board of Environmental Studies and Toxicology of the National Research Council. He is Chair of the CASAC Lead Review Panel. In recent years, he has served on an EPA Science Advisory Board panel on expert elicitation, an EPA Advisory Council on Clean Air Compliance Analysis panel on EPA's Report to Congress on Black Carbon, National Research Council committees on review of the toxicological assessment of tetrachloroethylene and of EPA's New Source Review program, a NARSTO assessment of multipollutant air quality management, and a World Health Organization working group on uncertainty in exposure assessment. He was a lead author for 2006 guidance by the Intergovernmental Panel on Climate Change (IPCC) regarding uncertainty in greenhouse gas emission inventories. He is a Fellow and Past President of the Society for Risk Analysis and a Fellow of the Air & Waste Management Association. He received the 2008 NCSU Alumni Association Outstanding Research Award and 1999 Chauncey Starr Award of the Society for Risk Analysis. He has a B.S. in Mechanical Engineering from the University of Virginia, and from Carnegie Mellon University he has a Master of Engineering in Mechanical Engineering and Ph.D. in Engineering and Public Policy. Dr. Frey is the principal investigator of grants from the National Science Foundation and U.S. Environmental Protection Agency and contracts from the North Carolina Department of Transportation and United States Department of Transportation. He has received funding from the U.S. Department of Interior (National Park Service) via Louis Berger Group, Inc., the New Jersey Department of Environmental Protection via GbD, Inc., and the Environmental Research and Education Foundation via the University of Nebraska at Lincoln. He was a co-PI on a recently completed grant from the National Institutes of Health. These projects pertain to measurement and modeling of the activity, energy use, and emissions of vehicles and to exposure assessment.

Gayer, Ted

Brookings Institute

Ted Gayer is the vice president and director of the Economic Studies program and the Joseph A. Pechman Senior Fellow at the Brookings Institution. He conducts research on a variety of economic issues, focusing particularly on public finance, environmental and energy economics, housing, and regulatory policy. Prior to joining the Brookings Institution in September 2009, he was associate professor of public policy at Georgetown University. From 2007 to 2008, he was deputy assistant secretary for Economic Policy at the Department of the Treasury. While at Treasury, he worked primarily on housing and credit market policies, as well as on energy and environmental issues, health care, Social Security and Medicare. From 2003 to 2004, he was a senior economist at the President's Council of Economic Advisers, where he worked on environmental and energy policies. From 2006 to 2007, he was a visiting fellow at the Public Policy Institute of California, and from 2004 to 2006 he was a visiting scholar at the American Enterprise Institute.

Goldman, Gretchen

Union of Concerned Scientists

Dr. Gretchen Goldman has expertise in air pollution exposure science, meteorology, and environmental policy. She received a Ph.D. and M.S. in environmental engineering from the Georgia Institute of Technology and a B.S. in atmospheric science from Cornell University. Her research focused on statistical modeling of urban air pollution for use in epidemiologic studies of acute human health effects. Specifically, Dr. Goldman used geostatistical models to characterize measurement error from air pollution monitoring in order to assess the impact of this error on health risk assessments in time-series health studies. Following a postdoctoral research position, Dr. Goldman is now a lead analyst at the Union of Concerned Scientists. Her work here focuses on a range of issues within science policy. She researches how decision making is informed by scientific research and the influences that affect science policy development and implementation. Her issues of study have included the National Ambient Air Quality Standards (NAAQS), climate change policy, scientific integrity at federal agencies, and hydraulic fracturing, among other topics. Dr. Goldman currently serves on the Air and Climate Public Advisory Committee (ACPAC) for the Metropolitan Washington Council of Governments (MWCOG), the metropolitan planning organization for the Washington, D.C. region. Finally, Dr. Goldman continues to stay active in the academic community, through conferences, publications, and presentations.

Greenstone, Michael

Massachusetts Institute of Technology

Dr. Michael Greenstone is the 3M Professor of Environmental Economics in the Department of Economics at the Massachusetts Institute of Technology. He is a Non-Resident Senior Fellow at the Brookings Institution, a Research Associate at the National Bureau of Economic Research, and an Elected Member of the American Academy of Arts and Sciences. His research estimates the costs and benefits of environmental quality and society's energy choices. He has worked extensively on the Clean Air Act and examined its impacts on air quality, manufacturing activity, housing prices, and infant mortality to assess its costs and benefits. He is currently engaged in large-scale projects to estimate the economic costs of climate change and identify efficient solutions. His research is increasingly focused on developing countries. This work includes an influential paper which demonstrated that high levels of particulates air pollution from coal combustion are causing 500 million residents of Northern China to lose more than 2.5 billion years of life expectancy. He is also engaged in projects with the Government of India and three state governments that use randomized control trials to test innovative ways to improve the functioning of environmental regulations and increase energy access. Dr. Greenstone also has extensive policy experience. He served as the Chief Economist for President Obama's Council of Economic Advisers from 2009-10. Additionally, from 2010-2013, he was the Director of the Hamilton Project at the Brookings Institution, which studies a range of policies to promote broad-based economic growth, and has since joined its Advisory Council. Greenstone received a Ph.D. in economics from Princeton University and a BA in economics with High Honors from Swarthmore College. His research has been funded by a wide variety of sources, including the National Science Foundation, National Institute of Health, the MacArthur Foundation, and the Sloan Foundation.

Kaufman, Joel

University of Washington

Dr. Kaufman is a physician-epidemiologist, board-certified in internal medicine and occupational medicine. A graduate of the University of Michigan (B.A., M.D.) and the University of Washington (MPH), he has been a full-time faculty member at the University of Washington (UW) since 1997. He is currently Professor in the departments of Environmental & Occupational Health Sciences, Medicine, and Epidemiology, and the Director of the UW's Occupational and Environmental Medicine Program. His current research activities are primarily focused on environmental factors in cardiovascular and respiratory disease. He is the principal investigator of a major epidemiological prospective cohort study of air pollution and cardiovascular disease (The Multi-Ethnic Study of Atherosclerosis and Air Pollution, or "MESA Air"). He directs the UW Northlake Controlled Exposure Facility, a facility customized for experimental inhalation toxicology studies on health effects of combustion-derived pollutants including diesel exhaust. He is also principal investigator of a National Institutes of Health-funded Specialized Center for Research at the University of Washington on Cardiovascular Disease and Traffic-Related Air Pollution. Dr. Kaufman's research integrates the disciplines of epidemiology, exposure sciences, toxicology, and clinical medicine.

Lioy, Paul J.

UMDNJ - Robert Wood Johnson Medical School

Dr. Paul Lioy is a Professor and Vice Chair, Department of Environmental and Occupational Medicine at Rutgers Robert Wood Johnson Medical School (RWJMS), Piscataway, N.J. He is also Deputy Director for Government Relations at the Rutgers Environmental and Occupational Health Sciences Institute (EOHSI) and is the Director the Institute's program in Exposure Science. Dr. Lioy received the International Society of Exposure Science (ISES) Jerome Wesolowski Award for Lifetime Achievement in Exposure in 1998, and in 2003 he was the recipient of the Frank Chambers Award for lifetime achievement in Air Pollution from the Air and Waste Management Association. In 2006 he received the RWJMS R. Walter Schlesinger Basic Science award for Mentoring, and in 2008 he was named the Rutgers University Graduate School Distinguished Alumnus in Mathematics, Engineering and Physical Sciences, that same year he was named Distinguished Lecturer by the ISES. In 2009 he received a Conservation Award and the Ellen Harlin Walworth National medal for Patriotism from the Daughters of the American Revolution. In 2012 he received a community service award from the combined entities of the State of NJ, Union County and the Township of Cranford, NJ and the Chamber of Commerce. He has been a member of the Science Advisory Board (SAB) of the US EPA, and has been involved with multiple committees that dealt with air pollution standards, hazardous materials, as well as cost benefit analyses of Clean Air Act. Dr. Lioy was a member of the National Academy of Sciences Board of Toxicology and Environmental Studies, and was Chair of the National Research Council's first committee on Exposure Assessment, and was recently the Vice Chair of its Committee on Exposure Science in the 21st Century. In addition he has been a member of 12 other committees that completed reports on hazardous wastes, air pollution (e.g. ozone and particulate matter), and human health. Dr. Lioy was a member of the US-Canada International Joint Commission Air Quality Advisory Board (1992-2007) that dealt with trans-boundary issues of Air Pollution and water pollution. He was Vice Chair of the EPA and CEQ WTC Expert Technical Panel (2004-2005). He was special councilor to the WHO on air pollution guidelines. He is a member of the International Academy of Indoor Air Sciences, and is a Fellow of the Collegium Ramazzini, Carpi, Italy. He is a founder of International Society for Exposure Science and was President from 1993-94. He has been an academic councilor to the New Jersey Legislature. He was Chair of it Clean Air Council, 1983-1984, and is currently a Member of the Science Advisory Board of the NJ Department of Environmental Protection. Dr. Lioy was Co-Chair of the Preparedness College of the Office of Homeland Security and Preparedness of State of NJ. He is on the Executive Committee of the University Center on Disaster Preparedness and Emergency Response of RWJMS/Rutgers/ RWJ Hospital. Dr. Lioy has been an executive editor or associate editor of 7 journals that deal with environmental science, human exposure and/or air pollution. Currently, he is an Associate editor of the J. Environmental Health Perspectives, and of the J. Exposure Science and Environmental Epidemiology. He has published 280 peer reviewed papers, including results from scientific studies, reviews and vision on science and science policy, and ethics. He has also contributed book chapters, editorials, and has published five Books, including Dust: the Inside Story of its role in the September 11th Aftermath (Hardcopy/paperback) written for general audiences and a new book Titled Exposure Science published in 2014. Since 2002 he has been identified by the Information Science Institute as one of the most cited scientists in the category of Environment/Ecology. His research has been funded for >30 years by numerous federal and state agencies, and other organizations on air pollution, exposure assessment, disasters, environmental health, and toxic materials. Funding agencies have included EPA, NIEHS, NIH, DOE, State of NJ, and NASA. A major focus is on fundamental principles of Human Exposure Science, and their application to State, National and International Environmental Health problems. Included, are research on the Aftermath of the Attack on the WTC, the Toms River Cancer Cluster, Chromium exposure and health effects in Jersey City, NJ, Ozone and Asthma, Air Pollution in China, and nanoparticles in consumer products. He was part of the leadership of the NY/NNJ Consortium on the National Children's Study that was funded for over seven years, and maintains a leadership role in the NIEHS supported Center for Environmental Exposure and Disease.

Moore, Jr., Charles Thomas (Tom)

Western Governors' Association, Western Regional Air Partnership

Mr. Charles Thomas (Tom) Moore, Jr. is the air quality program manager for the Western States Air Resources (WESTAR) Council and manages the Western Regional Air Partnership (WRAP) program, a voluntary partnership of states, tribes, federal land managers, local air agencies and the US EPA, whose purpose is to understand current and evolving regional air quality issues in the context of the Clean Air Act (CAA) and its Amendments. His work covers ambient monitoring data analysis, emissions inventory preparation and analysis, regional photochemical grid modeling and source apportionment results, and satellite air quality data. He has worked extensively with both the activity and emissions estimation techniques for wildland and agricultural fire emissions, in support of air quality planning and management programs across the West. He has a B.S. in Physical Geography (1989) from Arizona State University in Tempe, with an emphasis on meteorological and glacier field studies, and climate data analysis projects. He has lead numerous air pollution monitoring studies and analysis projects, held management positions in state and local government, and has worked as an environmental consultant. Before joining WESTAR in 2013, he worked for the Western Governors' Association from 2002-13 coordinating and managing WRAP activities. From 1990 to 2001, he designed and managed air quality monitoring and analysis activities for the Arizona Department of Environmental Quality, where he led the development and implementation of the haze monitoring networks in both urban and remote areas throughout the state. Tom has also worked previously for the WESTAR from 1994-96 on an inter-agency personnel assignment, advising EPA on western U.S. topics and issues with the implementation of the national Particulate Matter health and welfare standards. As a WESTAR representative from 1996-98, he served on the Science and Technical Support Workgroup of the EPA CAAAC's Subcommittee On The Joint Implementation of Ozone and PM NAAQS and Regional Haze rule. He has served as a member of the Wyoming Ozone Technical Advisory Group 2010-11, a Member of the EPA Clean Air Scientific Advisory Committee (CASAC) Particulate Matter Review Panel 2008-11, and a member of the Expert Air Quality Panel reviewing draft EPA 2007 Report on the Environment in January 2008. He has also served as the Arizona DEQ representative to the IMPROVE Steering Committee 1999-2001, on the Phoenix (AZ) Metropolitan Area Visibility Index Oversight Committee, and the Stakeholder Advisory Group for the Arizona Regional Haze State Implementation Plan Development process, both 2001-02. He is a member of the Air & Waste Management Association.

Nadeau, Kari

Stanford University School of Medicine

Dr. Nadeau has the expertise, leadership and motivation necessary to successfully carry out studies involving environmental exposures and its effects in adults and children. Dr. Nadeau also is known for her studies on human immune tolerance, specifically focusing on regulatory T cells and other immune cells. She has a broad background in immunology, biochemistry, and clinical research, with a specialty in Asthma, Allergy, and Immunology in adult and pediatric patients. The laboratory performs a wide array of assays on human immune cells, including sequencing, phenotypic, and functional studies in human T cells, dendritic cells, and basophils. As the Director of Allergy Research at Stanford, Dr. Nadeau began collections from every consented subject in 2002 and has continued to do so. Dr. Nadeau, with collaborators from Stanford and around the world, also works on the causes of asthma and allergy by studying a well-characterized identical twin cohort. Dr. Nadeau has published over 95 peer-reviewed papers; many of which focused T cells, environmental exposure, and immune dysfunction. Dr. Nadeau has successfully administered several projects (staffing, research protections, budget) and collaborated with researchers in other disciplines. In summary, she has a demonstrated record of successful and productive research projects in an area of high unmet need, such as mechanisms of immune tolerance in asthma, allergy, and basic immunology.

Pope, III, C. Arden

Brigham Young University

Dr. C. Arden Pope, III is the Mary Lou Fulton Professor of Economics at Brigham Young University. He received his MS and PhD degrees from Iowa State University in 1981. His training was in economics and statistics and his early research publications related primarily to agriculture, natural resource, and environmental economics. In the late 1980s, Dr. Pope began conducting cross-disciplinary research in environmental economics and air pollution epidemiology that resulted in several pioneering studies on the health effects and costs of air pollution. In 1992/93 he was a Post-Doctoral Fellow and Visiting Scientist at the Harvard School of Public Health. He has conducted and collaborated on a series of seminal studies of human health effects of air pollution. He has played prominent roles in reviewing and interpreting the literature and is one of the world's most cited and recognized experts on the health effects of air pollution. He has also served on many scientific advisory, editorial, and oversight panels, boards, and committees and has been the recipient of various honors and awards including: The Gardner Prize Utah Academy of Sciences, Arts, and Letters (2014); Honorary Fellow of the American College of Chest Physicians (FCCP Hon, 2008); Thomas T. Mercer Joint Prize from the American Association for Aerosol Research and the International Society for Aerosols in Medicine (2001); Utah Governor's Medal for Science & Technology (2004); BYU Distinguished Faculty Lecturer Award (2006); among others.

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.

Rood, Mark

University of Illinois at Urbana-Champaign

Mark J. Rood is the Ivan Racheff Professor of Environmental Engineering in the Department of Civil and Environmental Engineering at University of Illinois at Urbana-Champaign (UIUC). He completed his B.S. degree in Environmental Engineering at Illinois Institute of Technology, Chicago Illinois during 1978. He was then a consulting environmental engineer at Pacific Environmental Services until 1980. Professor Rood completed his M.S. and Ph.D. degrees in Environmental Engineering from the University of Washington studying ambient aerosol optics and chemistry by 1985. He was then a visiting researcher at the International Meteorological Institute, Stockholm University studying atmospheric chemistry, until he became an assistant professor of Environmental Engineering at UIUC. Dr. Rood became a professor of Environmental Engineering at UIUC during 1998. His research activities include air quality engineering and science pertaining to ambient aerosol chemistry and physics, optical remote sensing of ambient aerosols, development of aerosol characterization technologies related to climate change, gas separation, and development of materials and methods to capture and recover or dispose of gases from gas streams in a sustainable manner. Dr. Rood has obtained funding from organizations such as USEPA, NSF, NOAA, NASA, DOE, DOD, UIUC, Grainger Foundation, State of Illinois, General Motors, Ford Motor Company, Liquid Carbonic Corp., and Pregis Corp. He has participated on panels for organizations such as USEPA, NSF, DOD, and State of Illinois. Dr. Rood has been a member of USEPA's Science Advisory Board, a Vice President and member of the Board for the Air and Waste Management Association (AWMA), member of the Executive Committee for Association of Environmental Engineering and Science Professors as its Treasurer, Chief Editor of the Journal of Environmental Engineering, and associate editor of Journal of AWMA. He is currently a Co-Chief Editor of Environmental Technology and Innovation and an advisory board member of Particuology.

Sheffield, Perry

Mount Sinai School of Medicine

Dr. Perry Sheffield completed the Pediatric Environmental Health Fellowship at the Mount Sinai School of Medicine after graduating from the Medical College of Georgia and then training in Pediatrics in the Harriet Lane Program of Johns Hopkins University. She is now an Assistant Professor at the Icahn School of Medicine at Mount Sinai and Deputy Director of the Region 2 Pediatric Environmental Health Specialty Unit. She conducts both qualitative and quantitative research on the health impacts of climate change and public understanding of these issues with a particular focus on children. From 2008 to 2012, she co-instructed the Columbia Mailman School of Public Health course Public Health Impacts of Climate Change. She receives research support from NIEHS and Pew Charitable Trusts/RWJF.