

**Invitation for Public Comment on the List of Candidates for the  
EPA Science Advisory Board  
Lead (Pb) Review Panel  
March 25, 2010**

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a *Federal Register* Notice (Volume 75, Number 24, Pages 6030 – 6031) published on February 5, 2010 that it was forming an *ad hoc* Panel under the auspices of the SAB to review and provide independent expert advice on EPA's draft technical analyses that will be used to support : (a) Possible revision of existing residential lead-based paint dust hazard standards, (b) the development of new lead-based paint dust hazard standards for public and commercial buildings, and (c) the development of lead-safe work practice standards for renovations of public and commercial buildings. To form the Panel, the SAB Staff Office sought public nominations of nationally recognized and qualified experts in one or more of the following areas, particularly with respect to lead: dust transport, exposure assessment, epidemiology, general toxicology, neurotoxicology, pediatrics, biokinetic modeling, biostatistics, and risk assessment.

The SAB Staff Office has identified 34 candidates based on their relevant expertise and willingness to serve.

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

**We hereby invite comments on the attached List of Candidates for consideration by the SAB Staff Office in the formation of this Panel. Comments should be submitted to Mr. Aaron Yeow, Designated Federal Officer, no later than April 15, 2010. E-mailing comments ([yeow.aaron@epa.gov](mailto:yeow.aaron@epa.gov)) is the preferred mode of receipt.**

## SAB Lead Review Panel

### Buckley, Timothy

The Ohio State University

Dr. Timothy J. Buckley is an associate professor and Chair of the Division of Environmental Health Sciences at The Ohio State University (OSU) College of Public Health. Dr. Buckley received his Ph.D. in Environmental Science from Rutgers University (1991), a Masters of Health Science in Industrial Hygiene from the Johns Hopkins Bloomberg School of Public Health (1986), and B.S. in Chemistry from St. John's University (Collegeville, MN; 1981). Dr. Buckley is a certified industrial hygienist and has been elected to leadership positions among his professional associations including chair of the American Industrial Hygiene Association's Biological Monitoring Committee and Academic Counselor of the International Society of Exposure Analysis. Dr. Buckley has also been an active member of the American Conference of Governmental Industrial Hygienists (ACGIH) since 1986. Dr. Buckley's research expertise is in human exposure assessment as applied in risk assessment and epidemiology. This expertise is formed from 21 years of experience spanning his doctoral work (5 years), followed by five years as a research scientist with U.S. EPA's National Exposure Research Lab, and another twelve years in academia. Prior to his move to OSU, Dr. Buckley was on the faculty at the Johns Hopkins Bloomberg School of Public Health for nine years. Throughout his research career, Dr. Buckley has focused on methods, measurements, and models for assessing human exposure to contaminants in the community and work environments as a basis for assessing the public health threat and developing strategies for prevention. Dr. Buckley's current research is focused on the impact of air pollution on susceptible populations including urban economically disadvantaged communities, inner-city asthmatic children, nursing mothers and their infants, and communities in close proximity to heavily trafficked urban arterials. He has published over fifty peer-reviewed research articles on these and other topics. Dr. Buckley served on the U.S. EPA's Science Advisory Board's (SAB) Exposure and Human Health Committee from 2001 to 2007, he has been an ad hoc member of the U.S. EPA Board of Scientific Counselors (BOSC), he is a member of the Centers for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control Initial Review Group, and he is an associate editor for Environmental Health Perspectives. While at Johns Hopkins he served on the Faculty Advisory Board for the Center for a Livable Future. During his tenure with the U.S. EPA, Dr. Buckley received awards for his role and efforts in the National Human Exposure Assessment Survey (NHEXAS) and the Lower Rio Grande Environmental Exposure Study. His published research was recognized in 1996 with a U.S. EPA Scientific and Technology Achievement Award and again in 1999 by the Walter G. Berl Award given by the Johns Hopkins Applied Physics Laboratory.

### Canfield, Richard

Cornell University

Richard Canfield is a developmental psychologist who received his Bachelor's degree in Psychology from the University of Puget Sound in 1980 and his Ph.D. in Psychology from the University of Denver in 1986, specializing in perceptual and cognitive development in young infants. He conducted postdoctoral research in the Department of Human Development at Cornell University from 1988-1990, after which he joined the faculty at Cornell. In 1998, as Associate Professor of Human Development, Dr. Canfield took the position of Senior Research Associate in the Division of Nutritional Sciences where he conducts research on the possible effects of prenatal and postnatal exposure to environmental toxins and variations in the prenatal diet on cognitive functioning during infancy and childhood. His ongoing research projects include a study of the effects of low-level lead (Pb) exposure on children's intellectual and neuropsychological development. He has also conducted research on the risks and benefits of maternal fish consumption during pregnancy. This research questions, for example, whether a prenatal diet rich in fish oils can compensate for the possible neurotoxic effects of prenatal exposure to the methylmercury contained in the fish. Dr. Canfield has also studied the possible effects of prenatal exposure to phthalates on cognitive and behavioral functioning during childhood. Finally, Dr. Canfield is examining the development of infants exposed prenatally to a human herpes virus (HHV-6) to determine whether early infection with HHV-6 is related to neurobehavioral impairments during infancy and childhood. Similar viruses have this effect but it remains unknown whether HHV-6 infection is deleterious to later child development.

### Caravanos, Jack

Hunter College of the City University of New York

Dr. Jack Caravanos is an Associate Professor at Hunter College of the City University of New York where he directs the ABET accredited MS degree program in Environmental and Occupational Health Sciences (EOHS) as well as the MPH EOHS degree. He received his Master's from Polytechnic University in New York City and proceeded to earn his Doctorate in Public Health (Environmental Health) from Columbia University in 1984. Dr. Caravanos holds certification in industrial hygiene (CIH) and prides himself as being a "practicing environmental specialist". As director of one of the largest environmental hygiene programs in the United States; located in the largest city; Dr. Caravanos has extensive experience in variety of urban environmental and industrial hygiene problems. His principle area of research is urban environmental lead dust sources and migration and has published in this area. Most recently, Dr. Caravanos has worked with an international environmental assessment non-governmental organization (Blacksmith Institute) to identify and remediate urban hazardous waste sites with specific attention to the improper recycling of used lead-acid batteries (ULAB). He has traveled worldwide assessing ULABs and lead contamination from artisanal ceramic manufacturers and has extensive experience in X-ray fluorescence (XRF) Lead Detection technology and LeadCare Blood testing equipment.

## Clark, Scott

University of Cincinnati

Dr. Clark is Professor of Environmental Health in the Department of Environmental Health in the University of Cincinnati College of Medicine. He was Director of the Division of Occupational and Environmental Hygiene and Director of the University of Cincinnati National Institute for Occupational Safety and Health Education and Research Center for a number of years. Dr. Clark received a B.S. in Engineering-Science from Antioch College and a M.S.E. and Ph.D. from the Department of Environmental Engineering and Science of the Johns Hopkins University. Dr. Clark has focused his research efforts on occupational and environmental exposure in a variety of areas such as wastewater treatment, composting of waste residuals, drinking water contamination and lead-based paint. The research has included exposure assessment methods, exposure pathways, and the evaluation of interventions. He has 90 publications. He is currently engaged in assessing the impact of his finding of high levels of lead in new household paints that are being used in a number of countries in Asia, Africa and South America and in activities to eliminate such use. He is a partner in the World Health Organization (WHO)-United Nations Environment Programme (UNEP) Global Alliance to Eliminate Lead in Paints. Dr. Clark was Co Principal Investigator of the "Cincinnati Soil Lead Abatement Demonstration Project", a component of the US Environmental Protection Agency Urban Soil Lead Abatement Demonstration Project. He was also Principal Investigator for the University of Cincinnati in their collaboration with the National Center for Healthy Housing in the design and conduct of the "HUD Lead-Based Paint Hazard Control Grant Evaluation Project".

## Dietrich, Kim

University of Cincinnati

Dr. Dietrich is Professor of Environmental Health and Director of the Division of Epidemiology and Biostatistics at the University of Cincinnati College of Medicine, Department of Environmental Health. Dr. Dietrich has also served as Associate Director of the Cincinnati Children's Center for Environmental Health and Disease Prevention at the Children's Hospital Medical Center of Cincinnati. He received his Bachelor's degree in Psychology, his Master's degree in Human Development, and his PhD in Developmental Neuropsychology, all from Wayne State University. Dr. Dietrich has served as a consultant to numerous local, state, national and international agencies and organizations concerned with the impact of environmental chemical exposures on the health and development of young children. These agencies and political entities have included the National Institutes of Health, National Academy of Sciences, the United States Environmental Protection Agency, the United States Centers for Disease Control and Prevention, the United States Agency for Toxic Substances and Disease Registry, Health and Welfare Canada, the European Economic Community, the Australian Government, the World Health Organization, the United States White House Office of Science and Technology, Physicians for Social Responsibility, Sierra Club, and Environmental Defense Fund. Dr. Dietrich's research has focused on the developmental effects of prenatal and early postnatal exposure to lead in infants, toddlers, school-age children, adolescents, and young adults. He is presently examining the relationship between early exposure to lead, genetic factors, and adult criminality in a longstanding prospective longitudinal birth cohort study. His other studies include an examination of the developmental benefits of chelation therapy with succimer in a multi-center clinical trial and investigations of the effects of prenatal exposure to prevalent developmental toxicants including lead, manganese, pesticides, mercury, PCBs, tobacco smoke, drugs and alcohol in several birth cohorts. He is also examining the relationship between environmental factors that may determine pathways through puberty in girls as a risk factor for early developmental psychopathology and later pre- and post-menopausal breast cancer. Along with his colleagues, Dr. Dietrich uses a wide range of neuroassessment tools and biomarkers in his studies. Neurodevelopmental assessments include standardized psychometrics, measures of neuromotor functions, and advanced neuroradiological techniques including volumetric and functional magnetic resonance imaging, magnetic resonance spectroscopy, and diffusion tensor imaging. Biomarkers of environmental exposure have included analyses of a wide range of metals and other environmental toxicants in a variety of tissues including blood, meconium, urine, and hair.

## Fowler, Bruce

U.S. Centers for Disease Control and Prevention (ATSDR/CDC)

Dr. Bruce A. Fowler Ph.D., Fellow A.T.S., received a B.S. degree in Fisheries (Marine Biology) from the University of Washington in 1968, and a Ph.D. in Pathology from the University of Oregon Medical School in 1972. He was a staff scientist at the National Institute of Environmental Health Sciences from 1972 until 1987, when he became Director of the University of Maryland system-wide Program in Toxicology and Professor of Pathology at the University of Maryland School of Medicine. In 2001, Dr. Fowler became Professor and Director of the Laboratory of Cellular and Molecular Toxicology in the Department of Epidemiology at the University of Maryland School of Medicine. In 2002, he began an IPA assignment as a Senior Research Advisor to the Agency for Toxic Substances and Diseases Registry (ATSDR) in the Division of Toxicology. Dr. Fowler is the author of over 195 research papers and book chapters dealing with molecular mechanisms of metal toxicity and biomarkers for early detection of metal-induced cell injury. He has been the editor or co-editor of 4 books or monographs on metal toxicology and mechanisms of chemical-induced cell injury. Dr. Fowler's current research is focused on the toxicology of chemical mixtures involving metals, particularly in relation to semiconductors, lead, cadmium, arsenic mixtures and the role(s) of lead-binding proteins in mediating the toxicity of this ubiquitous metal to the kidney and brain. He serves on the editorial boards of a number of scientific journals in toxicology and environmental health. Dr. Fowler, who is an internationally recognized expert on the toxicology of metals, has served on a number of Federal, State, and international advisory committees in his areas of expertise. These include the Maryland Governor's Council on Toxic Substances (Chair), National Academy of Sciences / National Research Council Committees on Toxicology, Toxicology Information Committee, Committee on Women in Science and Engineering, Measuring Lead in Critical Populations (Chair), Biological Markers of Urinary Toxicology, Committee on the Evaluation of Augmenting Potable Water Supplies with Reclaimed Water, and the Subcommittee on Arsenic in Drinking Water of the Committee on Toxicology. He has also served as a temporary advisor to the World Health Organization (WHO) and the International Agency for Research Against Cancer (IARC). Dr. Fowler has been honored as a Fellow of the Japanese Society for the Promotion of Science (1990), a Fulbright Scholar and Swedish Medical Research Council Visiting Professor at the Karolinska Institute, Stockholm, Sweden (1994-1995) and elected as a Fellow of the Academy of Toxicological Sciences (2000). Dr. Fowler currently serves as Chairman of the Scientific Committee on the Toxicology of Metals under the International Commission on Occupational Health (ICOH), as a member of EPA's Clean Air Scientific Advisory Committee (CASAC) Lead NAAQS Review Panel, and as a member of the Fulbright Scholarship review committee for Scandinavia (1999-, Chair, 2000-2001). Dr. Fowler is also a member of the AAAS Recruitment and Screening Committee for the Court-Appointed Scientific Experts (CASE) Demonstration Project 2000-Present.

## Gilbert, Steven

Institute of Neurotoxicology and Neurological Disorders

Dr. Steven G. Gilbert, Director and Founder of the Institute of Neurotoxicology and Neurological Disorders (INND), has a Ph.D. in Toxicology from the University of Rochester, and is a Diplomat of American Board of Toxicology (D.A.B.T.). His book, *A Small Dose of Toxicology- The Health Effects of Common Chemicals* addressing everyday concerns about toxicology was published in 2004 (see [www.asmalldoseof.org](http://www.asmalldoseof.org)). His latest project is developing *Toxipedia* ([www.toxipedia.org](http://www.toxipedia.org)), a wiki based web site designed to connect science and people. This project has resulted in a series of wiki based web sites including the *World Library of Toxicology* (WLT, [www.wltox.org](http://www.wltox.org)), funded in part by the National Library of Medicine. He also started a web site on *Integrated Pest Management* ([www.IPMopedia.org](http://www.IPMopedia.org)), in part with funding King County, WA Hazardous Waste. He is an Affiliate Professor in the Department of Environmental and Occupational Health Sciences, University of Washington and an Affiliate Professor, Interdisciplinary Arts & Sciences, University of Washington Bothell. Dr. Gilbert is a former owner and President of Biosupport, LTD., which he sold to SNBL USA Ltd. a Japanese based corporation. For two years he continued as President of SNBL USA and SNBL USA Biosupport. These companies were involved in pre-clinical contract research, toxicology, primate research and specialized model development including, research in cardiovascular biology, and neurobiology in a GLP environment. The Institute of Neurotoxicology and Neurological Disorders, founded in 1996, is a non-profit (501c3) institute dedicated to research and education in the neurotoxicology. Dr. Gilbert is the author or co-author on over 40 peer-reviewed publications as well as numerous abstracts, several book chapters, and has given almost 425 invited presentations. He was on the Editorial Board of *Toxicological Sciences*, Past-President and member of the Board of Directors of the Northwest Washington Association of Biomedical Research (NWABR), formerly on Institute for Children's Environmental Health, advisory board, and member of the Board of Directors of Washington Toxics Coalition, and former member, KUOW public radio station. He is currently president of the board of directors of Washington Physicians for Social Responsibility, and on the board of Resource Media. He is actively involved in the Master Home Environmentalist Program, dedicated to community education about home hazards. He is a member of the NWABR speaker's bureau giving lectures in K-12 classrooms on toxicology, animal use in research, drug development, stem cells and ethics. He teaches at the University of Washington, most recently a course on risk assessment. He has also served on several committees for the Society of Toxicology. The majority of Dr. Gilbert's research has focused on understanding the neurobehavioral effects of low-level exposure to lead and mercury on the developing nervous system. Efforts to make this research accessible to the public and government regulators have fostered an interest in risk assessment, risk communication and the precautionary principle. Steve brings an interesting perspective to basic toxicology having worked for the Canadian government, as leader in private industry and as a teacher and faculty member in the Department of Environmental and Occupational Health Sciences at the University of Washington.

## Goodrum, Philip E.

ARCADIS BBL, ARCADIS of New York, Inc.

Dr. Philip Goodrum is a Principal Scientist with ARCADIS with 20 years of experience in environmental modeling and applications of probability and statistics to human health and ecological risk assessment, compliance monitoring, and natural resources damages assessment. He received a Ph.D. in Environmental Engineering from SUNY College of Environmental Science and Forestry (ESF) in 1999; an M.S. in Environmental Engineering from SUNY ESF in 1995; and a B.S. in Environmental Technology from Cornell University in 1989. Dr. Goodrum's Ph.D. dissertation was entitled, "Uncertainty Analysis of Childhood Lead Exposure Using the Integrated Stochastic Exposure Model." He developed and demonstrated applications of the Integrated Stochastic Exposure Model for lead, which uses Monte Carlo simulation to quantify variability and uncertainty in childhood blood lead concentrations based on variability and uncertainty in exposures. Dr. Goodrum specializes in quantitative uncertainty analysis and lead risk assessment, having served for approximately 10 years as a consultant for USEPA's Technical Review Workgroup for Lead. As a senior project manager for Syracuse Research Corporation from 1996 to 2006, he conducted and reviewed numerous lead risk assessments, managed EPA's "Lead Hotline" which assisted the public with applications of both the IEUBK model and the interim Adult Lead models, co-authored numerous platform presentations, technical white papers and guidance documents, and actively participated in the research and development of EPA's All Ages Model for lead. Dr. Goodrum has been an active member of community outreach and professional peer review panels. In 1998-1999, he served as the chair of the Syracuse Regional Lead Task Force, responsible for coordinating public outreach and educational programs for the Syracuse community on childhood lead exposure. Dr. Goodrum served on a peer review panel for U.S. EPA National Center for Exposure Assessment (NCEA) for the All-Ages Risk Model in 2000. He was an invited speaker by NCEA for the National Air Quality Criteria for Lead Workshop held in Chapel Hill, NC, Feb. 1-3, 2005. In 2006-2007, Dr. Goodrum served on the Clean Air Scientific Advisory Committee Panel as a member of EPA's Science Advisory Board charged with reviewing the Lead Renovation, Repair, and Painting (LRRP) report and Office of Pollution Prevention and Toxics Dust study. Currently he is a member of the Interstate Technology and Regulatory Council's technical workgroup on Incremental Sampling Methodology, charged with developing guidance on new sampling methodologies for use in risk assessment. Dr. Goodrum continues to assist USEPA's Office of Pesticide Programs in the development of probabilistic models for aquatic and terrestrial risk assessments for pesticides. He is a senior statistician for ARCADIS responsible for site investigation activities including sampling design and data analysis, regression and correlation analyses, multivariate analyses, hypothesis testing, trend analysis, outlier analysis, spatial statistics, hotspot identification (cluster analysis), and statistical methods for left-censored data. He teaches professional short courses on applied statistics and serves on the adjunct faculty at State University of New York College of Environmental Science and Forestry, where he teaches a graduate course on Environmental Modeling.

## Guest, Derek

Environmental & Sustainability Solutions

Dr. Guest is a self-employed scientist providing support to small businesses and community organizations in addressing environmental, public health and sustainability issues. He was educated in the United Kingdom before moving to the United States to complete postdoctoral training in toxicology at the Chemical Industry Institute of Toxicology (CIIT). He has worked for more than 2 decades for Eastman Kodak as senior Environmental Health and Safety manager and Director. He is currently serving on CDC/ATSDR National Conversation on Public Health and Chemical Exposures (Serving Communities Work Group) and with the Rochester-based Center for Environmental Information that works to address regional environmental issues, such as watershed protection and community health. Dr. Guest is a full member Society of Toxicology.

## Hays, Sean

Summit Toxicology

Sean Hays is the President and founder of Summit Toxicology, a toxicology and risk assessment consulting firm headquartered in Colorado. 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 been a consultant since 1995, where he specializes in conducting exposure assessments, deriving acceptable exposure limits (i.e., reference doses and reference concentrations, cancer slope factors, permissible exposure limits, and minimal risk levels), and developing pharmacokinetic (PK), physiologically based pharmacokinetic (PBPK), and pharmacodynamic (PD) models for drugs and chemicals. Sean has developed PBPK models for a wide range of chemicals and metals, and has used PBPK models to answer real world public health issues. Sean has published numerous manuscripts on the topic of pharmacokinetics, co-authored one book chapter and has been an invited speaker to numerous venues to present his work on risk assessment, PK and PBPK modeling issues. Sean has served on EPA review panels for the All Ages Lead PBPK Model and the Clean Air Scientific Advisory Committee for lead and on similar review committees for Health Canada in their deliberations for how to perform risk assessments on lead.

## Hunt, Andrew

University of Texas at Arlington

Dr. Andrew Hunt received his B.Sc. in Earth Science and a Ph.D. in Atmospheric Science from the University of Liverpool, England. After four years in Post-Doctoral research in Applied Geochemistry at Imperial College of Science, Technology, and Medicine in London, England, he was recruited to the faculty of the Pathology Department of the State University of New York Health Science Center in Syracuse, NY. After becoming a Research Associate Professor of Pathology and Associate Director of the Environmental and Occupational Pathology, and spending 14 years at the Medical School in Syracuse, Dr. Hunt took a position in environmental consulting. Currently he is on the faculty of the Department of Earth And Environmental Sciences at the University of Texas at Arlington. For the past 25 years, Dr. Hunt's research has addressed problems relating to health and environmental hazards in urban and indoor environments. He has been involved in a number of studies concerned with characterizing and apportioning the sources of lead (Pb) in indoor dust, and with mapping the distribution of lead in dust across urban environments (funded by the U.K. Department of the Environment, EPA, HUD, and NSF). His work has also repeatedly focused on lead contamination of urban soil; and he is currently involved in research into the use of phosphate amendments as cost-effective in situ treatments for stabilizing soil lead contamination. Dr. Hunt has also published in the areas of lung disease associated with inhaled particles, and pediatric asthma in relation to environmental exposures. Dr. Hunt has served on various committees and panels, including the Executive Board of the Society for Environmental Geochemistry and Health; he is also the immediate past President of the Society for Environmental Geochemistry and Health.

## Jacobs, David E.

University of Illinois at Chicago

David E. Jacobs, PhD, CIH is an Adjunct Associate Professor in the School of Public Health at the University of Illinois at Chicago. He has a doctorate in Environmental Engineering, a Master of Science in Technology and Science Policy, a Bachelor of Science in Environmental Health (chemistry) and a BA in Political Science. His expertise is in risk assessment, exposure assessment, and toxicology, as well as housing. He has published numerous scientific studies in the area of childhood lead poisoning prevention, including two recent articles on use of data from the National Health and Nutrition Examination Survey to estimate associations between housing conditions, dust lead levels and children's blood lead levels. He is also the senior author on a pooled analysis of 12 epidemiological studies on the relationship between dust lead and blood lead. He helped to establish the scientific foundation for the current EPA dust lead standard. He designed a study that compared different lead dust sampling methods in the residential setting and children's blood lead levels. Most recently, he completed a major study of lead particulate dustfall from housing demolition in Chicago and Baltimore. He has published numerous papers on lead hazard control in the residential setting and has served on several panels on lead and housing for the World Health Organization. He is the scientific editor for a forthcoming WHO book on the environmental burden of housing related disease and injury, and is the author of the chapter on lead in housing in that book. He is currently serving on the EPA Children's Health Protection Advisory Committee.

## Jaycock, Michael A.

The LifeLine Group

Dr. Michael Jaycock is a Senior Analyst with The LifeLine Group, a non-profit organization dedicated to the development of scientific tools for human exposure and risk assessment. He has been with LifeLine for 3 years. He is also a Senior Analyst for the for-profit LINEA, Inc. Previous to this he was a Senior Research and Environmental Health and Safety Fellow and Manager for Risk Assessment at the Rohm and Haas Company; and had been working with that company for 35 years. In his current position, he is responsible for the determination of human health risk from and development of tools for the evaluation of human exposure and risk to chemicals. Dr. Jaycock received both his Ph.D. in Environmental Engineering and his M.S. in Environmental Science and Occupational Health from Drexel University. He is a Fellow of the American Industrial Hygiene Association and is certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene. Dr. Jaycock's professional activities include such areas as exposure modeling research, human exposure/risk assessment to environmental pollutants and uncertainty analysis. He has published extensively in peer-reviewed publications and served from 1998-2003 as an Editorial Board Member for the American Industrial Hygiene Journal. He has made numerous technical presentations, including at the American Industrial Hygiene Conference, International Society of Exposure Assessment Conference, and the Air Toxics Monitoring Workshop to Support EPA's Integrated Urban Air Toxics Strategy. His wide service on advisory committees includes: U.S. EPA Board of Scientific Councilors Peer Review Panel for Office of Research and Development Science Program, Executive Committee, Human Health Research Strategy Panel, March 2005; U.S. EPA - Office of Pollution Prevention & Toxics - Voluntary Children's Chemical Evaluation Program (VCCEP), Peer Consultation Panel on Flame Retardants, 2003 and Methyl Ethyl Ketone, 2004; U.S. EPA Science Advisory Board, Executive Committee, Human Health Research Strategy Panel, November 2002; U.S. EPA Science Advisory Board Consultant 2001-2003 - Integrated Human Exposure Committee; U.S. EPA Science Advisory Board Member 1998-2001 - Integrated Human Exposure Committee (IHEC); and National Research Council - National Academy of Sciences, as a Member of the Committee to Review Risk Management in the DOE's Environmental Remediation Program, the Committee on Advances in Assessing Human Exposure to Airborne Pollutants, and the Committee on Toxicology - Subcommittee on Risk Assessment of Flame-Retardant Chemicals. Dr. Jaycock also serves as a team teacher or guest lecturer for local universities including Drexel, the Philadelphia University of the Sciences, Temple and Thomas Jefferson Universities. He is a Guest Lecturer at the University of Pennsylvania Medical School, Residency Program for Occupational Medicine; and he is also an Instructor for a Professional Development Course on risk assessment for the American Industrial Hygiene Conference and Exposition. Previously, he served as Course Director and Instructor for Risk Assessment and Intermediate Exposure Modeling at the University of North Carolina Education Research Center, Summer Institute.

## Jordan, Dennis

### Alameda County Lead Poisoning Prevention Program

Since 1997, Dennis Jordan has served as the Environmental Services Manager for the Alameda County Lead Poisoning Prevention Program (ACLPPP) in Oakland, California. He graduated with a BA in Biology from California State University, Fullerton in 1977 and received a Certificate in Hazardous Material Management from University of California at Irvine in 1990. In 1995, Mr. Jordan received a Master of Science in Public Health from Tulane University and achieved certification in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene. During his career in clinical toxicology, Mr. Jordan developed analytical procedures for a large reference laboratory and led staff through the requirements as an OSHA-approved blood lead laboratory and met the criteria for the National Institute on Drug Abuse allowing the laboratory to perform forensic drug screening. In 1991, he accepted a position as Health and Safety Manager for an environmental remediation firm based in Louisiana, performing waste removal, treatment, and disposal of materials from chemical plants, refineries, and Superfund sites. Through his leadership and direction of the corporate safety program, the company reduced the incident rate and dramatically lowered WC premiums. During his tenure at the ACLPPP, Mr. Jordan has managed two successful US Department of Housing and Urban Development Healthy Homes demonstration grants. As the Training Director for the ACLPPP, Mr. Jordan developed the training component of the Program and has led the effort to ensure that the Program is California- and EPA-accredited for lead-related construction and a training partner with the National Center for Healthy Housing healthy housing courses. Mr. Jordan is committed to improving the nation's housing stock particularly where low-income, marginalized populations reside. His primary focus includes ensuring that lead-safe and healthy homes concepts are included in all construction practices including renovation, weatherization, and "green" construction.

## Kleinman, Michael T.

### University of California, Irvine

Michael T. Kleinman has been studying the health effects of exposures to environmental contaminants found in ambient air for more than 30 years. He holds a B.S. in Chemistry from Brooklyn College/City University of New York, an M.S. in Chemistry from the Polytechnic Institute of Brooklyn and a Ph.D. in Environmental Health Sciences from New York University. He is a Professor and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine at University of California, Irvine. Prior to joining the faculty at U.C.I. in 1982, he directed the Aerosol Exposure and Analytical Laboratory at Rancho Los Amigos Hospital in Downey, CA. He has published more than 100 articles in peer-reviewed journals dealing with the uptake and dosimetry of inhaled pollutants in humans and laboratory animals, and effects on cardiopulmonary and immunological systems after controlled exposures to ozone and other photochemical oxidants, carbon monoxide and ambient or laboratory-generated aerosols. He chaired a National Academy committee to examine issues in protecting deployed US Forces from the effects of chemical and biological weapons. Dr. Kleinman's current studies focus on cardiopulmonary effects of concentrated ambient ultrafine, fine and coarse particles. Dr. Kleinman uses animal models (mice that are genetically predisposed to cardiopulmonary disease, aged rats as a model of aging human populations and a mouse model of allergic airways disease) to examine biological mechanisms of effects of inhaled air contaminants on the lungs and heart of normal and diseased individuals. Current studies have also addressed mechanisms by which inhaled particles can induce inflammation in the central nervous system. Dr. Kleinman is a consultant to the U.S. Environmental Protection Agency Science Advisory Board and is the Chair of the California Air Quality Advisory Committee, which reviews the scientific basis and recommendations for California's air quality criteria.

## **Kosnett,Michael**

University of Colorado Health Sciences Center

Dr. Kosnett is a medical toxicologist with a clinical and research interest in the toxicology of lead and other heavy metals. Dr. Kosnett received his B.S. degree in Molecular Biophysics & Biochemistry from Yale University in 1979, his M.D. degree from the University of California, San Francisco in 1983, and his M.P.H. degree in Environmental Health Sciences from the University of California, Berkeley, in 1988. Dr. Kosnett is a Diplomate of the American Board of Internal Medicine, the American Board of Medical Toxicology, and the American Board of Preventive Medicine (Occupational Medicine). He is an Associate Clinical Professor in the Division of Clinical Pharmacology and Toxicology at the University of Colorado Health Sciences Center, and an Attending Physician at the Rocky Mountain Poison and Drug Center. Dr. Kosnett currently serves as the Chair of the Work Group on Lead in Consumer Products of the CDC Advisory Committee on Childhood Lead Poisoning Prevention. He is Past-President of the American College of Medical Toxicology (2002-2004), the national organization of physicians specializing in the field of medical toxicology. In 2005, he completed three years of service on the National Institute for Occupational Safety and Health (NIOSH) - funded Expert Panel on Medical Management Guidelines for Lead Exposed Adults convened by the Association of Occupational and Environmental Clinics. He is a past member of the Committee on Toxicology of the National Research Council, and of the US EPA Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) Scientific Advisory Panel on Copper-Chromated-Arsenic Treated Wood. He has served on the Subcommittee on Arsenic in Drinking Water of the National Research Council (1999 and 2001 reports). He is currently a member of the World Health Organization's Antidote Monograph Peer Review Committee, and he has been a Temporary Advisor to the World Health Organization regarding human arsenic exposure from drinking water in India and SE Asia. Between 1997 to 2000, Dr. Kosnett served on four expert workshop panels convened by the Agency for Toxic Substances and Disease Registry (ATSDR) to develop recommendations on medical monitoring for residents impacted by the Bunker Hill, Idaho Superfund Site, the largest lead-contaminated site in the United States. Dr. Kosnett has been a recent consultant to the CDC's National Center for Environmental Health on selected sections on metals (including lead) contained within the Second and Third National Report on Human Exposure to Environmental Chemicals. In 2003, Dr. Kosnett was recipient of the Assistant Administrator's Award for Special Service to the Agency for Toxic Substances and Disease Registry. Dr. Kosnett has conducted research and authored several papers and book chapters on the clinical toxicology of human lead exposure, including the use of noninvasive K x-ray fluorescence as a biomarker of cumulative lead exposure. He has served as a clinical consultant to the Occupational Lead Poisoning Prevention Program of the California Department of Health Services for more than 15 years, and also serves as an advisor on childhood lead screening and prevention for the Colorado Department of Public Health and Environment. In Denver, Dr. Kosnett was an EPA funded Technical Advisor to a community group regarding the VB/1-70 Superfund site, a large residential area impacted by arsenic and lead in residential soil, and he was a technical consultant to the ATSDR funded "Kids At Play" study of childhood pica behavior conducted in that venue.

## **Lanphear,Bruce**

Simon Fraser University

Bruce P. Lanphear, MD, MPH, is a Professor of Children's Environmental Health at Simon Fraser University and a Senior Scientist at the Child & Family Research Institute, BC Children's Hospital, both in Vancouver, British Columbia. He received his Medical Degree from the University of Missouri at Kansas City and his Masters in Public Health from the Tulane School of Public Health & Tropical Medicine. He completed a residency in Preventive Medicine and Public Health at Tulane University and is board certified in Preventive Medicine and Public Health. Dr. Lanphear completed a 3-year NIH-funded postdoctoral training program in pediatric research at the University of Rochester School of Medicine. He has conducted numerous epidemiologic studies and several randomized controlled trials to reduce children's exposure to environmental hazards, including those implicating low-level lead exposure as a risk factor for intellectual deficits and behavioral problems in children. Dr. Lanphear also conducted several studies examining the relationship of lead-contaminated house dust with children's blood lead levels. Dr. Lanphear is currently the principal investigator for an NIH-funded study to examine the associations of prenatal and early childhood exposures to prevalent environmental neurotoxicants, including lead, pesticides, mercury, PCBs, and environmental tobacco smoke with the development of learning and behavioral problems. He has served on the Children's Environmental Health Expert Advisory Panel of the Commission on Environmental Cooperation (2000-2003) and as a member of the US EPA's Clean Air Scientific Advisory Committee on Lead Review Panel (2006-2008).

## Lebowitz, Michael

University of Arizona Colleges of Public Health & Medicine

Michael Lebowitz has a Ph.D. in Epidemiology & International Health, and Environmental Health Sciences (with minors in Sociology and Biostatistics), and a Ph.C. in Preventive Medicine (with a minor in Biomedical Sciences) from the University of Washington (Seattle). He also has an MA in Biostatistics (with a minor in Demography) and a BA in Psychology from the University of California at Berkeley. He completed his clinical training in cardio-pulmonary medicine at the University of London Postgraduate Cardio-thoracic Institute. He started in public health in 1962, and worked in both county and state health departments in Epidemiology and Biostatistics. His areas of expertise are community-based prevention/intervention research, chronic & infectious disease epidemiology, and environmental-occupational medicine. He is a fellow of the American College of Chest Physicians, the American College of Epidemiology, and the Collegium Ramazzini. He is an elected member of the International Academy of Indoor Air Sciences, the American Epidemiological Society, the International Epidemiological Association, Delta Omega (the honorary public health society), and as an honorary member of the Hungarian Society of Hygiene. He is a founding member of the International Society of Exposure Analysis (ISEA) and the International Society of Environmental Epidemiology, and a charter member the Society of Epidemiological Research. He has been a member of other medical and scientific societies. He is a past President of ISEA and recipient of its highest award, and is past Chair of the national prevention research centers national program. He is currently a Professor of Public Health at the University of Arizona College of Public Health and has received various honors and awards from The University of Arizona College of Public Health and Graduate College. He has been Principal Investigator (PI) of many grants and is currently the Principal Investigator of a Centers for Disease Control and Prevention (CDC) Prevention Research Center and Border Vision Fronteriza (HRSA), and is Co-Principal Investigator of a Legacy Foundation grant and an National Institute of Health (NIH)-National Heart, Lung, and Blood Institute (NHLBI) grant. Dr. Lebowitz has served on the EPA Science Advisory Board, on National Academy of Sciences (National Research Council-NAS/Institute Of Medicine) committees, and has been a consultant and peer-reviewer for EPA, NIH, National Institute for Occupational Safety and Health (NIOSH) and other agencies for over 30 years. He has also served as member/chair of committees for the World Health Organization (WHO), Pan American Health Organization (PAHO), and United Nations Environment Programme (UNEP). He has been an expert consultant and witness for state and federal government agencies, various non-governmental organizations (NGOs) and community-based organizations (CBOs). He has over 400 peer-reviewed publications.

## Louis, Thomas

Johns Hopkins University Bloomberg School of Public Health

Thomas A. Louis, PhD is Professor of Biostatistics, Johns Hopkins Bloomberg School of Public Health. He earned his PhD in Mathematical Statistics from Columbia University, followed by positions as Assistant Professor of Mathematics, Boston University; Associate Professor of Biostatistics, Harvard School of Public Health; Professor and Head of Biostatistics, University of Minnesota School of Public Health; Senior Statistical Scientist, Rand. Research includes risk assessment; environmental and public policy; Bayesian methods, the analysis of longitudinal data in both experimental and observational studies, genomics. Current applications include genome-wide association study (GWAS), accommodation of genotype uncertainty, assessing the health effects of airborne particulate matter, clinical trials on the treatment of Uveitis and behavioral interventions to reduce obesity. He has published over 250 articles, books/chapters, monographs and discussions. Professor Louis is an elected member of the International Statistical Institute, a Fellow of the American Statistical Association and of the American Association for the Advancement of Science. From 2000 through 2003, he was coordinating editor of The Journal of the American Statistical Association and is currently a co-editor of Biometrics. He has served as president of the Eastern North American Region of the International Biometric Society (IBS) and President of the IBS. He has chaired the ASA section of Bayesian Statistical Science and is chair-elect of the AAAS Statistics Section. From 2000-2005, he served on the Health Review Committee of the Health Effects Institute and is currently a member of the Board of Scientific Counselors, NIH/NIEHS. National Academy panel and committee service includes the Committee on National Statistics, the Committee on Applied and Theoretical Statistics, the Panel on Estimates of Poverty for Small Geographic Areas, the Panel on Formula Allocation of Federal and State Program Funds (chair), the Board of the Institute of Medicine's Medical Follow-up Agency, the IOM Panel to Assess the Health Consequences of Service in the Persian Gulf War, the Committee on the use of Third Party Toxicity Research and the Standing Committee on Risk Assessment.

## Menrath, William

University of Cincinnati

Mr. William Menrath has been a Research Scientist in the Department of Environmental Health at the University of Cincinnati Medical Center since 1988. During those years he has participated major research projects including the Cincinnati Soil Lead Abatement Project, one of the three sites in the USEPA Soil Lead Abatement Demonstration Project which assessed the impact of soil lead abatement on the blood lead levels of children living in proximity to the contaminated soil. He was also involved in the Evaluation of the HUD Lead-Based Paint Hazard Control Grant Program, an eight year multi site study. Mr. Menrath was also involved in numerous environmental lead studies on CERCLA sites where he was responsible for the collection of tens of thousands of interior and exterior environmental and biological samples including blood and urine. The data from those studies represented more than fifty percent of the data used in the meta analysis that resulted in the establishment of the current USEPA hazard levels for lead in settled dust on floors and window sills. His recent research focus is on the development and evaluation of lead sampling methods including a comparison of the University of Cincinnati (UC) exterior dust vacuum method, the USEPA HEPA vacuum method, and the HUD wipe method and a study entitled, "Testing and Improving the Accuracy of a Commercially Available Wipe Method Used to Test for Lead in Settled Dust." He also conducted one of the earlier studies comparing multiple dust sampling methods to determine which was the best predictor of children's blood lead levels. This and other studies resulted in HUD selecting the dust wipe method for sampling interior settled dust. Mr. Menrath received BS and MS degrees in biology from the University of Cincinnati.

## Mielke, Howard

### Tulane University

Howard W. Mielke is currently a Research Professor in the Department of Chemistry and the Center for Bioenvironmental Research at Tulane University. He earned his undergraduate degree in biology, chemistry and geography at Macalester College in St. Paul in 1963 and then joined the Peace Corps for a teaching program in Malawi, Africa. He received his MS in biology and his Ph.D. in geography at the University of Michigan. He began urban geochemistry research in 1971 while teaching at the University of California, Los Angeles, and continued his urban studies at the University of Maryland, Baltimore County, Macalester College in Minnesota, and the Center for Regional and Urban Affairs of the University of Minnesota. His Baltimore study on accumulated exterior sources of lead is recognized as pioneering research. His research highlighted the need to prevent urban accumulation of toxins and remove lead from gasoline. He has published numerous articles on the topic of exterior metal accumulation in many cities. Before Katrina and the flooding of New Orleans he was a professor of environmental toxicology at the College of Pharmacy, Xavier University of Louisiana. Dr. Mielke joined the faculty at Xavier University in 1988 and became the Principal Investigator of a multimedia study of metals in urban and rural New Orleans for the Environmental Health and Toxicology Research Program with the Minority Health Professions Foundation/Agency for Toxic Substances and Disease Registry. In 2004 he became the Principle Investigator of a pilot project for a Housing and Urban Development Lead Technical Study to Xavier University entitled "Re-Cover New Orleans" whereby clean soils were brought into severely contaminated communities of New Orleans to reduce the potential for childhood exposure to lead and other toxins that had accumulated in the soil. After Katrina and the termination of the toxicology program at Xavier University he was invited to join the faculty of Tulane University as a Research Professor. In New Orleans his focus is on issues related to environmental health disparities from the accumulation of metals. As part of his activities he is involved in policy discussions that changed the regulations for house painting in New Orleans, and his publications have international impact because they form the scientific basis for proactive prevention of metal exposure. Specifically, his research influenced policy for the removal of lead from gasoline, supported revised lead laws in New Orleans, Michigan, Canada, Mexico, Peru, the European Union, and especially Norway. Dr. Mielke is a full member of the Society of Toxicology and a member of the board of the Society of Environmental Geochemistry and Health.

## Mirer, Franklin E.

### Hunter College of The City University of New York

Dr. Franklin E. Mirer is a toxicologist and certified industrial hygienist. His primary scientific interest is exposure and risk assessment in the occupational environment, and regulatory policy. Dr. Mirer has been Professor of Environmental and Occupational Health in the Urban Public Health Program at Hunter College of the City University of New York since 2006. He retired as Director of the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) Health and Safety Department after 30 years of service. Dr. Mirer received a Ph.D. in organic chemistry from Harvard University in 1972, and trained further as a Research Fellow in Toxicology at the Harvard School of Public Health. He joined the UAW staff in 1975, and was appointed Director of the UAW Health and Safety Department in 1981. Dr. Mirer served on the National Academy of Sciences (NAS) Framework Committee to Review the National Institute of Occupational Safety and Health's (NIOSH) Research Programs and Evaluation Committee for the NIOSH Health Hazard Evaluation Program. Previously, he served on the Occupational Safety and Health Agency's (OSHA) Metalworking Fluid Standards Advisory Committee; the NIOSH National Occupational Health Research Agenda liaison committee; the Institute of Medicine Roundtable on Environmental Health Sciences Research and Training; the NAS Committees on Institutional Means for Risk Assessment, Risk Assessment Methodology, and Review of the Health Effects Institute; the Board of Scientific Counselors of the National Toxicology Program; an International Agency for Research on Cancer (IARC) Working Group; the Centers for Disease Control and Prevention (CDC) Injury Advisory Committee and the National Institutes of Health's (NIH) Safety and Occupational Health Study Section. He has authored scientific papers in exposure assessment, risk assessment and epidemiology. Dr. Mirer was inducted into the National Safety Council's Health and Safety Hall of Fame, received the Alice Hamilton Award for Lifetime Service from the Occupational Safety and Health Section of the American Public Health Association, the Spirit of Detroit Award from the Detroit City Council, and the President's Award for Health and Safety from Ford Motor Company. He is a Fellow of the Collegium Ramazzini and the American Industrial Hygiene Association.

## Mushak, Paul

### PB Associates

Dr. Paul Mushak is a toxicologist and human health risk assessor, working as a partner in PB Associates, a consulting practice in Durham, N.C. He is also a visiting professor, Albert Einstein College of Medicine, Bronx, N.Y. Earlier, he was a faculty member from 1971 to 1993 at the University of North Carolina - Chapel Hill School of Medicine, Pathology Department. He works in the area of contaminant/toxic metals, metalloids and organometals. His doctoral (University of Florida, Gainesville) and postdoctoral (Yale University Department of Molecular Biophysics and Biochemistry) training were in the areas of metal chemistry, biochemistry, enzymology and toxicology. He has more than 42 years of widely published research and advisory expertise in the areas of exposures and their determinants, analytical pediatric toxicology, toxicokinetics, modeling and health risk assessments. He is the author or co-author of more than 175 research papers, book chapters, proceedings papers, and abstracts, many on lead. He has served on numerous peer/advisory committees of Federal (Environmental Protection Agency, Department of Justice, Consumer Product Safety Commission, Occupational Safety and Health Administration, Centers for Disease Control and Prevention, Agency for Toxic Substances and Disease Registry), state, international (World Health Organization, Health Canada, Ontario Ministry of Environment) and National Academy of Sciences/National Research Council bodies, and chaired several U.S. Environmental Protection Agency review panels for reports to Congress. He has been qualified as a testifying expert in the above areas by a number of U.S. Federal and state courts and has testified before Congress on lead and child health.

## Petersen, Barbara J.

### Exponent

Dr. Barbara Petersen is currently a Principal Scientist in Exponent's Health Sciences Center for Chemical Regulation and Food Safety. Petersen holds a Ph.D. in Biochemistry from George Washington University, with minors in nutrition, microbial physiology, and organic chemistry. She also received an M.P.H. in Nutrition with a minor in biochemistry from the University of California at Los Angeles, and a B.S. in Nutrition with a minor in chemistry from New Mexico State University. She is an internationally recognized expert in exposure/risk assessment methodology and applications of Monte Carlo techniques to risk assessments for chemicals including contaminants, pesticides, and nutrients. Dr. Petersen served on the EPA Science Advisory Board's Integrated Exposure Committee and as an Expert Advisor to WHO/FAO for several sessions of JECFA and for numerous risk assessment consultations. Dr. Petersen chaired the WHO working group on methods for estimating intakes of nutrients, food additives, and contaminants in foods. Also she served as Principal Investigator for the National Cancer Institute's International FOODBASE project, a major effort to collect and computerize descriptive and summary information on food consumption surveys conducted in more than 40 countries. Dr. Petersen has provided statistical support to FDA's Center for Food Safety and Nutrition, including developing criteria for evaluating nutrition databases, and specifically for the International Interface Standard for food databases and to EPA's Office of Research and Development. She has been a faculty member in risk assessment training programs for government scientists in the European Union, Thailand, the U.S., and China.

## Ponessa, Joseph

### Rutgers University

Professor Joseph Ponessa has served as the Housing, Indoor Environments and Health specialist with Rutgers Cooperative Extension for 25 years. In this position, his primary responsibilities were to develop curricula and conduct outreach education and training programs for both lay and professional audiences. His formal training is in medical physiology; this is complimented by lifelong theoretical and practical experience in building science and technology. His primary area of concentration has been at the nexus of health and building science, synthesizing information from these two fields to develop programs on the health impacts of the indoor environment. Areas of concentration include mold and moisture management in buildings, radon awareness, asthma trigger management, and lead poisoning prevention (including safe work practices). Ponessa's involvement with lead poisoning prevention began in the early 1990's when he joined the NJ governor's Interagency Task Force on Lead Poisoning Prevention. Outreach presentations were provided to numerous audiences, laypersons and professionals, often in collaboration with State agencies and non-profits. As a member of the development team for the EPA project Healthy Indoor Air for America's Homes, Ponessa authored the instructional module on lead (and three other modules). This project, recipient of ten years' funding by EPA, has been used by extension educators (and many others) in 40 states and two territories, reaching some 100,000 individuals. A major outreach project in New Jersey was conducted in major-chain home improvement centers, with an information station providing one-on-one information on safe work practices in older homes. These sessions were conducted in 21 of the chain's 25 NJ outlets. On a national level, Ponessa's accomplishments include manuscript reviews for NIBS (Operations & Maintenance manual for lead-safe work practices); HUD/CDC (Basic Housing Inspection Manual) (invited); and Dennis Livingston (Maintaining A Lead Safe Home) (invited). He has also reviewed indoor environmental materials for EPA. Ponessa authored the training module on particulates, lead and asbestos for the Homebuilder Institute (NAHB) (invited). Ponessa recently retired from Rutgers University but remains active in his areas of interest. He participates in some grant-funded activities, provides guest lectures and teaches two, one day courses (basic building science, mold and moisture; and environmental quality in new construction) for NJ code officials, architects and builders. He has served on grants review panels (NIOSH), consults for the National Center for Healthy Housing, and was a board member of the Alliance for Healthy Housing until its merger with the former organization.

## Pounds, Joel

### Battelle Pacific Northwest National Laboratory

Dr. Joel Pounds is a Senior Staff Scientist in Cell Biology & Biochemistry, Biological Sciences Division and Science Advisor to the Environmental Biomarkers Initiative at Battelle - Pacific Northwest National Laboratory in Richland, WA. He received his B.A. in Zoology and Chemistry from Olivet Nazarene College (1971), his M.S. in Environmental Toxicology from the University of Wisconsin (1973), and a Ph.D. in Toxicology (1977) from the University of Wisconsin. Dr. Pounds has directed research programs in Government (National Center for Toxicological Research, 1977-1985); National Laboratories (Brookhaven National Laboratory, 1985-1990), and Academia (Wayne State University, 1990-1999). He has focused his research on the cellular and molecular toxicity of lead and other metals, metal-metal interaction, and mathematical modeling of the response to metal mixtures. Dr. Pounds' current research includes use of mass-spectrometry based proteomic and NMR-based metabolomic instrumentation for characterization of biological responses to nanomaterials and other airborne toxicants. Dr. Pounds has served on numerous NIH, ATSDR, and EPA advisory committees related to toxicology of lead, metals, mixtures, and risk assessment. In addition, he has many peer-reviewed publications, abstracts, and proceedings; edited volumes; and invited lectures, seminars and symposia in which he participated. Dr. Pounds' current active and pending research support pertains to proteomics, biomarkers, and systems toxicology, and includes: Battelle Memorial Institute (Implementation of Systems Toxicology for an Animal Model of Emphysema; Proteomic Characterization of Human Blood plasma); the Agency for Toxic Substances and Disease Registry (ATSDR) (Methods for Joint Toxicity Assessment of Environmental Mixtures); PNNL (Environmental Biomarker Initiative, Particulate Matter Impacts on Respiratory Health); and several private sector research contracts (Protein Biomarkers for Chronic Obstructive Pulmonary Disease; Proteomic Analysis of Plasma Proteins for Biomarkers of Stress).

## **Rabinowitz, Michael**

### **Harvard University**

Dr. Michael Rabinowitz is a geochemist with over 20 years of experience with lead. He holds an S.B. in Physics (1968) from the Massachusetts Institute of Technology; an M.S. in Planetary Sciences (1970) from the University of California, Los Angeles; and a Ph.D. in Geochemistry (1974) from UCLA. He was a NIEHS Post-Doctoral Fellow in the UCLA Department of Planetary and Space Science and Nephrology at the UCLA-Wadsworth VA Hospital. His current positions are Clinical Instructor in Neurology, Harvard Medical School and Library Reader, Marine Biological Laboratory, Woods Hole. Dr. Rabinowitz conducted several pioneering research projects on the environmental sources and pathways of lead contamination and the movement of lead within human body compartments by feeding stable isotope tracers to adult human volunteers in a metabolic balance ward. He is familiar with paint, rock, soil, vegetation, air, water, and tissue sampling in urban, rural and remote settings. Dr. Rabinowitz has established several clean-room laboratories for trace lead determinations in Massachusetts and Taiwan. He has experience with statistical analysis and data interpretation, including work on sources of lead to children and lead's effects on child development, and he is familiar with the chemical, physical, and personal factors which influence environmental uptake and absorption of lead. Dr. Rabinowitz has studied the history of the American lead paint industry, visited most of the production sites and analyzed available soil, metal, and paint samples to document this anthropogenic flow of lead. He has published about 80 articles on lead. Dr. Rabinowitz currently serves on no other advisory committees or professional societies. He participated in a U.S. EPA workshop on modeling lead exposure and bioavailability in 1998 and a more recent review of an uptake and distribution model (so-called LEAD5).

## **Schwartz, Brian**

### **Johns Hopkins University**

Dr. Schwartz is a Professor in the Division of Occupational and Environmental Health in the Department of Environmental Health Sciences in the Johns Hopkins Bloomberg School of Public Health. He is jointly appointed in the Department of Epidemiology in the School of Public Health and in the Department of Medicine in the School of Medicine. He served as Director of the Division of Occupational and Environmental Health from 1996 to 2006 and as Director of the Occupational and Environmental Medicine Residency from 1993 to 1998. Dr. Schwartz received a B.S. degree in chemistry from Tufts University in 1979; an M.D. degree from Northwestern University Medical School in 1984; and an M.S. degree in clinical epidemiology from the University of Pennsylvania School of Medicine in 1989. He completed a residency in internal medicine at the Hospital of the University of Pennsylvania from 1984 to 1987, and then was a Mellon Foundation Scholar in Clinical Epidemiology and a fellow in General Medicine there from 1987 to 1989. He completed a fellowship in occupational and environmental medicine from 1989 to 1990 at the Johns Hopkins School of Hygiene and Public Health, then joined the faculty there as an Assistant Professor in July 1990. Dr. Schwartz's research interests concern the role of neurotoxicants in cognitive dysfunction with aging, and more generally, occupational, environmental and molecular epidemiologic studies of the health effects of chemicals. Over the past 20 years, he has been engaged in three large, population-based longitudinal studies funded by the NIH of the central nervous system effects of lead in adults. Measures in these studies included blood and bone lead, cognitive function, and structural MRI of the brain. This work has identified a number of new health concerns of lead exposure in adults, including possible progressive functional effects with persistent structural lesions; and that a portion of what had previously been described as "normal cognitive aging" may be due, in part, to ubiquitous neurotoxicants such as lead.

## **Trasande, Leonardo**

### **Mount Sinai School of Medicine**

Dr. Leonardo Trasande co-directs the Children's Environmental Health Center at the Mount Sinai School of Medicine ([www.cehcenter.org](http://www.cehcenter.org)), where he holds a joint appointment as an Assistant Professor in the Department of Pediatrics and the Department of Community and Preventive Medicine. Dr. Trasande serves on the Board of Scientific Counselors for the National Center for Environmental Health at the Centers for Disease Control and Prevention. His research interests span medicine and policy. He is best known for his analyses of the economic impact of environmental toxins on child health, and is embarking on a series of analyses that document the immediate health and economic consequences of childhood obesity. His analysis of the health and economic consequences of mercury pollution played a critical role in preventing the Clear Skies Act from becoming law, and provided a major foundation for the multistate lawsuit that overturned EPA's Clean Air Mercury Rule (which relaxed regulations on emissions from coal-fired power plants). Dr. Trasande is also a leading investigator in the National Children's Study, a longitudinal cohort study of 100,000 children that will identify the preventable and environmental factors that contribute to asthma, obesity and other chronic conditions in childhood. Dr. Trasande earned a Master's degree in Public Policy from Harvard's Kennedy School of Government, and an M.D. from Harvard Medical School. He completed a pediatrics residency at Boston Children's Hospital, a Dyson Foundation Legislative Fellowship in the office of Senator Hillary Rodham Clinton, and a fellowship in environmental pediatrics at the Mount Sinai School of Medicine. He has testified before the Senate's Environment and Public Works committee and Democratic Policy Committee. His work has been featured on the CNN documentary, Planet in Peril and in National Geographic, and frequently appears on national media, including NBC's Today Show, ABC's Evening News and National Public Radio. Dr. Trasande is a Fellow of the American Academy of Pediatrics, and continues to practice clinically.

## von Lindern,Ian

TerraGraphics Environmental Engineering, Inc.

Dr. Ian von Lindern is Chairman and Chief Executive Officer of TerraGraphics Environmental Engineering in Moscow, Idaho. He holds a B.S. in Chemical Engineering from Carnegie-Mellon University and M.S. and Ph.D. degrees in Environmental Science and Engineering from Yale University. Dr. von Lindern has 35 years of national and international environmental engineering/science experience. He has directed over 40 major health/environmental investigations involving primary and secondary smelters and battery processors, landfills, uranium mill tailings, at several major mining/smeltering sites in the U.S. including: ASARCO/Tacoma, WA; East Helena and Butte/Anaconda in MT; and internationally in North America, Asia, Africa, Australia and Latin America. Dr. von Lindern has worked for the State of Idaho on various projects involving the Bunker Hill/Coeur d'Alene Basin Hill Superfund Site for over thirty years as the lead Risk Assessor. In that capacity he had extensive experience in applying exposure and bio-kinetic lead modeling in assessing human health risk, developing cleanup criteria and remedial design. He is currently the Senior Project Manager implementing the human health cleanup at the Idaho Superfund Site. He is currently involved in an International Initiative with the University of Idaho and non-government organizations to adapt the lead health response lessons learned in the U.S. to developing countries. Four international cleanup projects are underway including China, Russia, the Dominican Republic and Dakar, Senegal, where severe mortality and morbidity effects occurred in recent years. Dr. von Lindern has served as a U.S. EPA Science Advisory Board (SAB) Member on five occasions: (1) Review Subcommittee for Urban Soil Lead Abatement Demonstration Project, 1993; (2) Subcommittee Assessing the Consistency of Lead Health Regulations in U.S. EPA Programs, 1992; (3) Review Subcommittee Assessing the Use of the Biokinetic Model for Lead Absorption in Children at RCRA/CERCLA Sites, 1988; (4) the Ad Hoc All-Ages Lead Model (AALM) Review; (5) National Ambient Air Quality Standard for lead Panel (2006-2008). He also served on the EPA Clean Air Scientific Advisory Committee (CASAC) Subcommittee on Exposure Assessment Methodology, 1988; and was a member of EPA Criteria Assessment Committee for Lead in the Ambient Air from 1975-1986 and 2006-2008.

## Wasserman, Lee

LEW Corporation

In 1991 Shortly after Graduating from the University of Maryland, College Park in 1989, with a B.S. in Accounting, CPA, MD-1990, Lee E. Wasserman founded LEW Corporation, a full service nationally respected environmental consulting, remediation and training provider, which he remains president of to date. During these past 18 years thru his hard work, methodical understanding of Federal, State and Municipal Lead-Based Paint laws coupled with the Tens of Thousands of Lead-Based Paint Inspections, Assessments, Trainings & Remediation projects Lee has performed or overseen, is considered by many to be a well respected Lead-Based Paint and related hazards subject matter expert and has performed as such on numerous legal cases. Lee's hands on experience with performing all levels of Lead-Based Paint field evaluations and remediation as well as his extensive experience and participation in research and committees/initiatives related to XRF, PCS, ASV, In-situ Dust & Paint Proficiency programs, HUD Implementation of 1012, HUD Blitz/Bulge Training, HUD Big Buy, NJ Interagency Lead Task Force, NJ DOHSS lead dust wipe spatial variation sampling research, NAHB Lead Safe Work Practices study, Past President of LEHA (formerly NLAAC) as well as numerous awards of recognition for contributions in the field of Environmental Lead has enabled Lee to be a true asset to any lead related committee and/or field related lead research/discussion.

## Weitzman, Michael

New York University School of Medicine

Dr. Michael Weitzman is a professor of Pediatrics and of Psychiatry at the New York University School of Medicine where he previously served as the Chair of the Department of Pediatrics. Prior to this, he was the Executive Director of the American Academy of Pediatrics' Center for Child Health Research and Professor and Associate Chair of Pediatrics at the University of Rochester. Before that he was Director of Maternal and Child Health for the City of Boston (in which capacity he ran both the City's Lead Poisoning Prevention and Treatment Programs) and Director of General Pediatrics at Boston City Hospital and Boston University. Dr. Weitzman has published close to 300 peer-reviewed articles, chapters, books and abstracts of scholarly work. Most of his scientific work involves extensive collaboration with scientists from other fields. His work has focused on the epidemiology of child physical and mental health and health disparities at the boundaries of Pediatrics, the behavioral sciences, and Environmental, Public and Community Health. Much of it has dealt with environmental influences, such as lead and secondhand smoke exposure, as well as social influences on child physical and mental health and development. He has been the Principal or Co-Investigator on more than \$10 million dollars of lead-related research. He currently is the principal investigator on an NIEHS ARRA funded grant entitled Preventing Childhood Lead Exposure By Window Replacement (1RCES018558-01). Dr. Weitzman has more than 35 years of experience treating children with lead poisoning, running lead poisoning prevention programs, researching ways to achieve primary prevention, writing peer-reviewed papers and speaking around the globe about childhood lead exposure. He has served on the New York State Governor's Advisory Committee on Childhood Lead Poisoning; on the CDC's Lead Poisoning Prevention Committee, and chaired its Workgroup on Blood Lead Levels less than 10 ug/dl from 2002-2006 (in which capacity he was the lead author of the CDC Report on Blood Lead Levels Less than 10 ug/dl). Both his work leading the CDC efforts to understand the effects of low level lead exposure, and his serving as an expert witness in the Department of Justice's Federal Racketeering Case against the Tobacco Industry from 2000-2006 (DOJ vs Phillip Morris, Inc. et al, Civil No. 99-2496, D.D.C.), where he offered expert witness testimony on the causal nature of the relationship between prenatal tobacco and postnatal secondhand smoke and child development, recurrent ear infections, and Sudden Infant Death Syndrome have provided him with extensive experience in evaluating epidemiologic data for causal relations, and also demonstrates that both the CDC and the Department of Justice have relied on his expertise in these areas. He also served on the EPA's child scientific advisory committee and received that agency's first ever child environmental health advocacy award.

## Wessels, Gerard (Jerry)

City of St. Louis

Mr. Wessels began work for St. Louis City in the Building Division in 1992. In his first eight year of employment, he worked on traditional building inspection issues, and became a Certified Building Official (CBO) recognized by the International Code Council (ICC). Ten years ago, the City of St. Louis began a lead program in the City's Building Inspection Section. Mr. Wessels was put in charge of this. Several years later, in 2004, Mayor Slay instituted an Action Plan devised by Ruth Ann Norton. All inspection and remediation activities were moved from the Department of Health and put in the building division and Mr. Wessels was made a manager. Since the year 2000, he has learned much about lead inspection, the reasons children are lead poisoned and the most effective methods for remediation lead hazards. Mr. Wessels is proud that his program has reduced lead poisoning in the city from a screening prevalence level of 13.6% in 2003, to a level of less than 4% last year. Mr. Wessels is a Missouri State licensed Risk Assessor, Supervisor and Project Designer. He has a Bachelor of Arts degree, Magna cum Laude, from St. Louis University (1979). He has inspected and remediated thousands of homes and has gained much knowledge from this practical experience out in people's homes.

## Wilson, Jonathan

National Center for Healthy Housing

Jonathan Wilson, Deputy Director, National Center for Healthy Housing Mr. Wilson has worked at NCHH for over 16 years, most recently as the Deputy Director. In that capacity, he oversees NCHH's operations to assure the organization is fulfilling its mission to create healthy and safe housing for children through practical and proven steps. During his tenure, Mr. Wilson has served as a program manager for research, technical assistance and policy work. He helped coordinate the Evaluation of the HUD Lead Hazard Control Grant Program: the largest and most comprehensive study of lead hazard control in housing ever undertaken in the United States. He is the corresponding author of the final report on that project and a contributing author on a report documenting the effectiveness of those interventions after six years. He is currently overseeing two HUD grants investigating a) the effect of window replacement on longitudinal dust lead and b) possible dust lead standards for porch dust lead. Mr. Wilson has authored over a dozen peer-reviewed research manuscripts evaluating assessment tools and interventions for lead and other healthy housing hazards. Mr. Wilson serves as the NCHH representative to the federal CDC Advisory Committee on Childhood Lead Poisoning Prevention. He came to the NCHH with a background in non-profit housing development and a Master's of Public Policy from Duke University.