Invitation for Comments on the "Short List" Candidates for the Asbestos Panel of the EPA Science Advisory Board (SAB) April 19, 2007

The EPA Science Advisory Board (SAB) Staff Office announced in 71 FR 48926, August 22, 2006, that it was forming the Asbestos Panel. The Agency recently updated its asbestos health effects assessment which incorporates recent data regarding mineral type and particle dimension of asbestos fibers on the influence of risks for lung cancer and mesothelioma. The Asbestos Panel will provide technical advice on the proposed methodology to estimate potential cancer risk from inhalation exposure to asbestos. Background on the details of this advisory activity and panel nomination process appear in the above referenced Federal Register Notice and are also available at the SAB website (http://www.epa.gov/sab/).

The SAB Staff Office has reviewed the nominations for the Asbestos Panel, and has identified a "Short List" of 65 candidates, based on qualifications, expertise needed for this panel and interest of the nominees. Brief biosketches of candidates on the "Short List" are listed below and we invite comments from the public on these candidates. We welcome information and analysis or documentation that the SAB Staff Office should consider in evaluating the "Short List" candidates for possible service on the Asbestos Panel.

The SAB Staff Office will review all the information provided by the candidates, along with any information that the public may provide and information gathered by SAB staff independently on the background of the candidates. The SAB Staff Office will consider the following criteria in forming the Asbestos Panel: (a) appropriate balance and breadth of expertise needed to address the charge; (b) absence of financial conflicts of interest; (c) absence of an appearance of a lack of impartiality; (d) experience on scientific advisory committees; and (e) availability and willingness to serve.

Please email your comments no later than May 10**,** 2007 to the attention of Ms. Vivian Turner, Designated Federal Officer, (turner.vivian@epa.gov).

“Short List” Biographical Sketches for the Asbestos Panel

Abraham, Jerrold

SUNY Upstate Medical University

Dr. Jerrold Abraham is a Professor of Pathology and Director of Environmental and Occupational Pathology. He has been involved in asbestos research and diagnosis since 1972. He has a BS degree in Life Sciences from MIT (1966) and an MD from UCSF (1970). His experience has included routine diagnosis and analytical electron microscopy of asbestos and other fibers and non-fibrous particulates. He has served on asbestos-related committees for the American Thoracic Society, the College of American Pathologists, NIOSH, ATSDR. He has been the PI of EPA supported epidemiologic research. He has over 100 publications and his research has been supported by NIH, EPA, California Air Resources Board and the American Lung Association. He is on the Editorial Board of Archives of Environmental Health.

Addison, John

John Addison Consultancy Ltd.

Mr. John Addison is the Managing Director of a consultancy business based in Cottingham, England, offering services to a wide range of industrial, governmental and other clients with respect to asbestos and other mineralogical issues. He graduated as BSc with Honours in Geology from the University of Glasgow in 1969. He performed research on the appinite rocks of Scotland, that included detailed mineralogy and geochemistry of the amphibole constituents of those rocks. In 1978 he was appointed as mineralogist at the Institute of Occupational Medicine in Edinburgh, UK where he worked for the following 15 years. While there he was involved in the extensive research programmes of the IOM which included: the toxicology of the asbestos minerals and related amphiboles; the determination of asbestos minerals in contaminated land; the relationship between the bulk asbestos content of contaminated soil and the possible airborne asbestos concentrations in air following the disturbance of that soil; the development of reference asbestos minerals for use as the UK National Standards; methods for the quantitative analysis of trace quantities of asbestos in soil samples. He managed a section of 9 staff providing analytical services to research projects and outside clients using optical microscopy, Scanning Electron Microscopy, Transmission Electron Microscopy, Energy Dispersive X-ray Spectrometry, X-Ray Diffractometry, Fourier Transform Infrared Spectrophotometry and Atomic Absorption Spectrophotometry. He is author or co-author of more than 40 publications on asbestos and other health related mineralogical subjects. He has been a member of Working Groups 1 and 2 of the Health and Safety Executive Committee on Fibre Measurement for more than 10 years. The former is the oversight committee for the UK national proficiency testing schemes for laboratories undertaking fibre counting of airborne dust samples (RICE) and those performing asbestos identification in bulk samples (AIMS) for compliance with the UK Control of Asbestos Regulations. The latter working group is charged with the task of drafting the UK Regulaory methods for asbestos including: 'Asbestos: The analysts guide for sampling, analysis and clearance procedures'; 'MDHS 100, Surveying, sampling and assessment of asbestos-containing materials'; 'MDHS 87, Fibres in air; Guidance on the discrimination between fiber types in samples of airborne dust on filters using microscopy.

Anderson, Elizabeth

Exponent

Dr. Elizabeth L. Anderson is the Group Vice President of Exponent Health. Prior to joining Exponent, Dr. Anderson was President and CEO of Sciences International, a health and environmental consulting firm. She specializes in risk assessment as a basis for addressing the complex problems that arise in the context of regulatory and legal matters related to health and the environment for national and international companies and governments. Dr. Anderson has over 20 years of experience in working both within government institutions and for corporate entities. Previously, for the U.S. Environmental Protection Agency (EPA), she founded and directed the Agency's Carcinogen Assessment Group and the central risk assessment programs for 10 years. In this capacity, she was Executive Director of the EPA committee that initially adopted risk assessment as a basis for carrying out the Agency's regulatory mandates. She has also worked extensively on international risk assessment issues to address human health and ecological consequences of exposure to environmental toxicants, including for private companies, governments, the World Health Organization, and the Pan American Health Organization.

Anderson, Henry

Wisconsin Division of Public Health

Dr. Henry Anderson holds positions as the state environmental and occupational disease epidemiologist in the Wisconsin Department of Health and Social Services, chief medical officer in the Wisconsin Division of Public Health, and adjunct professor at the University of Wisconsin-Madison, Department of Population Health, and the University of Wisconsin Institute for Environmental Studies, Center for Human Studies. His expertise includes public health; preventive, environmental, and occupational medicine; respiratory diseases; epidemiology; human health risk assessment; and risk communication. Active research interests include: environmental health indicators and disease surveillance, childhood asthma, lead poisoning, reproductive and endocrine health hazards of sport fish consumption, arsenic in drinking water, chemical and nuclear terrorism, occupational and environmental respiratory disease, occupational fatalities, and occupational injuries to youth. Dr. Anderson currently serves on the EPA Children's Health Protection Advisory Committee, is the Chair of the Board of Scientific Councilors for the National Institute of Occupational Safety and Health and is serving on the National Academy of Sciences Toxicity Testing for Assessment of Environmental Agents. He was a founding member of the Agency for Toxic Substances and Disease Registry Board of Scientific Councilors (1988-1992). He served on National Academy of Sciences/Institute of Medicine committees that developed the reports Injury in America and Nursing, Health & Environment. He served on the Presidential Advisory Board on Radiation Worker Compensation, the Hanford Human Health Effects Subcommittee, and the Rocky Flats Advisory Committee for the Beryllium Program, the Centers for Disease Control and Prevention (CDC) and the National Center for Environmental Health, Director's Advisory Committee. He is a fellow of the Collegium Ramazzini and the American Association for the Advancement of Science. He is associate editor of the American Journal of Industrial Medicine and serves on the editorial board of Cancer Prevention International. Dr. Anderson received his M.D. degree in 1972 from the University of Wisconsin-Madison. He was certified in 1977 by the American Board of Preventive Medicine with a sub-specialty in occupational and environmental medicine and in 1983 became a fellow of the American College of Epidemiology.

Aust, Ann E.

Utah State University

Dr. Ann Aust retired from Utah State University on July 31, 2006, and is currently an Emeritus Professor of Chemistry and Biochemistry and am consulting in cellular biochemical and toxicological effects of inhaled particulates. She received a Ph.D. in Biochemistry from Michigan State University in 1975. Her research training was in classical enzymology. Her dissertation research involved purifying and characterizing yeast pyruvate kinase, a rate-controlling enzyme in glycolysis. The unexpected challenge of this project was to separate the enzyme from a tenacious protease and demonstrate that the purified enzyme was actually the native enzyme in both size and activity, unmodified by proteolytic cleavage. Dr. Aust's postdoctoral training in the laboratory of Drs. Veronica Maher and Justin McCormick was in carcinogen-induced DNA damage and mutagenesis in human cells. This training provided vast experience in conducting human cell culture of both fibroblasts and a variety of epithelial cells, mutagenesis in human fibroblasts and the isolation, metabolism of carcinogenic polycyclic hydrocarbons in epithelial cells, and characterization of DNA adducts in these cultured cells. This background in carcinogenesis and mutagenesis opened the door for her employment by Warner-Lambert/Parke-Davis Pharmaceutical Company as Director of Genetic Toxicology. Dr. Aust's group was responsible for the in-house conduct of all of the bacterial mutagenesis assays, mammalian mutagenesis and sister chromatid exchange assays, as well as chromosomal aberration assays in rat bone marrow for all drug candidates before prior to preclinical development. While in that position, she was asked to also direct a group of 12 pathologists and animal toxicologists focusing specifically on the toxicologic effects of cardiovascular drugs prior to and during preclinical development. After leaving Parke-Davis, she returned to academia where she initiated research to investigate the participation of iron from asbestos in the biological effects of these fibers on human lung epithelial cells. Through the course of these studies over the past 19 years, she and her graduate (18 Ph.D. & M.S. students) and undergraduate students investigated the ability of the iron on the fibers to react with molecular oxygen and the effect of mobilization of the iron from the fibers by a variety of biological and chemical chelators on this reactivity. Their conclusions were that while the iron was somewhat reactive on the fibers the activity was greatly enhanced by mobilization into solution. Work carried out in human lung epithelial cells studying the reactivity of iron on or mobilized from the fibers was consistent with these chemical studies. They further studied the role that iron from asbestos played in the biological effects of asbestos on these cells, such as DNA damage, cytotoxicity, apoptosis, and impact on pathways, such as EGFR activation, and found that these were related to varying degrees with iron from the fibers. However, they found that some effects of asbestos on these cells, not surprisingly, were unrelated to iron, such as the receptor-mediated uptake of fibers into the cells and the efflux of glutathione after uptake. Some of this work has carried over into inhaled particles other than asbestos, such as coal fly ash and urban particulates. The mobilization of iron from these particulates and some of the biological effects in human lung epithelial cells have been compared with observations for asbestos and significant differences have been noted. Through the years Dr. Aust has served on the Chemical Pathology Study Section for NIH to review grant proposals and have reviewed proposals for NSF. More recently, she participated in site visits for evaluation of the Laboratory of Comparative Carcinogenesis at NIH and the NSF Igert Nanoparticle Center at University of California, Davis. In 2005, she served on the EPA Review panel for PM Centers. She served on the Advisory Board for the EPA Particle Center at the University of Rochester. Also, she participated in a workshop sponsored by the European Centre for the Validation of Alternative Methods: “Non-animal (Alternative) Tests for Evaluating the Toxicity of Solid Xenobiotics” in Angera, Italy.

Axten, Charles

Health Risk Solutions, LLC

Dr. Charles Axten is currently President of Health Risk Solutions, an occupational and environmental health consulting firm which assists industry groups, corporations, legal firms, and the general public in all matters concerning toxic substances and the potential health effects thereof. Prior to his present position, he served for seven years as the Staff Vice President of Health, Safety, and Environmental Affairs for the North American Insulation Manufacturers Association (NAIMA), a trade association representing the manufacturers of fiber glass, rock wool and slag wool. Dr. Axten holds a Ph.D. in Occupational Health from the University of Michigan as well as an M.B.A. in Scientific/Technical Management from Fairleigh Dickinson University. In addition, he is a Certified Industrial Hygienist with more than twenty five years experience in the occupational/environmental health field with such multi-national organizations as Goodyear Tire and Rubber Company, ITT, Owens-Corning, and Partek Insulations.

Bailey, Elisabeth

Menzie-Cura & Associates

Dr. Lisa Bailey is a Senior Scientist with Menzie-Cura & Associates, Inc., and has 7 years experience in the field of human health risk assessment. She has lead numerous human health risk assessment projects under the Massachusetts Contingency Plan and the Environmental Protection Agency Superfund Program, working with industrial, utility, and government clients. Her experience includes evaluation of risk from numerous human health exposure pathways, including: exposure to sediment, surface water, soil, groundwater, and fish tissue; migration of contaminants from groundwater and soil to indoor air and trench vapor; evaluation of risk to young children and adults from exposure to lead in soil, sediment, groundwater and ingestion of organisms, through use of the Integrated Exposure Uptake Biokinetic (IEUBK) Model for lead and the Adult Lead Model; and asbestos risk assessment. Dr. Bailey has experience in development of remediation goals for numerous chemicals in soil, sediment, and groundwater that are protective of human health. She participates in the MADEP workgroups for the development of Massachusetts Contingency Plan groundwater and soil numerical standards and in the asbestos-in-soil workgroups. Dr. Bailey has expertise in the area of asbestos risk assessment. She has worked on both state and federal hazardous waste sites where exposure to asbestos in soil is a pathway of concern. She is a member of the Licensed Site Professional Association New Practices Committee that is currently focused on changes in site characterization and risk assessment for asbestos in soil, working closely with members of MADEP in development of the asbestos in soil policy. She has presented two posters on asbestos risk issues and has written an article that appeared in the LSPA News summarizing the proposed guidelines on asbestos risk assessment under the MCP. Dr. Bailey has experience in negotiating acceptance of work plans, risk assessments, and remediation goals with regulatory agencies. Dr. Bailey specializes in cancer biology with emphasis on mechanisms of DNA damage, DNA repair, mutagenesis and cellular processes involved in carcinogenesis. Dr. Bailey completed her Ph.D. in Biochemistry at the Massachusetts Institute of Technology in Cambridge, MA. Her Ph.D. thesis involved investigating the mutational properties of the potent liver carcinogen aflatoxin B1. Her studies required thorough examination of the mode of action of aflatoxin in the carcinogenesis process, focusing specifically on aflatoxin's induction of mutagenic and genotoxic effects. Her postdoctoral studies at the Harvard School of Public Health focused on oxidative DNA damage and repair and on the mutagenic outcome of unrepaired oxidative DNA damage.

Bailey, Mark

Asbestos TEM Laboratories, INC

Mr. Mark Bailey obtained a B.S. degree in Geology from U.C. Berkeley in 1979 where he published his first paper using transmission electron microscopy (TEM) to analyze the mineralogy of spherulitic crystallization in obsidian. From 1978 to1981, Mr. Bailey worked as a Minerals Exploration Geologist, first with Mono Power Company (a joint venture of So. Cal. Edison & Rocky Mountain Energy Corp.) then with Energy Reserves Group, for whom he explored for uranium and disseminated gold deposits. In 1981 Mr. Bailey earned a M.A. in Geology from U.C. Berkeley studying the nucleation and growth of crystals in magma. As a grad student, he assisted in teaching Optical Mineralogy/ Crystallography and Igneous Petrology. After graduating, Mr. Bailey worked at San Jose State University (SJSU) where he assisted in teaching summer geology field camps in California and Washington. From 1986 to 1987 Mr. Bailey worked as an environmental geologist for BioSystems Analysis and Baseline Environmental. In 1988 he joined National Asbestos Laboratories, Inc. as a lab analyst, but quickly rose to the position of Vice President. In 1989 Mr. Bailey founded Asbestos TEM Laboratories, which he has run for 19 years. Asbestos TEM Laboratories operates offices in both Berkeley, CA and Reno, NV. Mr. Bailey also provides asbestos analytical consulting services for mining companies, real estate developers, the California Air Resources Board, California DTSC, USEPA and others. Mr. Bailey is a nationally recognized leader concerning asbestos analytical issues. In 1992 Mr. Bailey worked with U.C. Extension and the U.C. Geology Dept. to setup a TEM training course for asbestos analysts. In 1997, Mr. Bailey presented and published a paper on TEM analysis of difficult water samples for asbestos at the ASTM Conference on Advances in Environmental Measurement Methods for Asbestos. In 2005, Mr. Bailey chaired a section meeting on Naturally Occurring Asbestos (NOA) issues in California. Mr. Bailey was successful in bring together professionals from a variety of disciplines including mineralogists, private geologists, environmental consultants, industrial hygienists and government regulators (USEPA, USGS, CGS, CA DTSC, BAAQMD, CAL OSHA) to discuss their experience with NOA issues. Mr. Bailey presented a talk on laboratory methods and the various problems related to NOA sample preparation and analysis including variations in particle sizes, counting rule problems, statistical uncertainties, detection limits, etc. Several environmental consultants called for a continuation of the discussion which lead to the formation of the SAGE Asbestos Working Group consisting of representatives from industry and regulatory agencies, which is an on-going active organization. Mr. Bailey is a regular participant in the Asbestos Working Group and has given several presentations at these meetings.

Berman, Wayne

Aeolus, Inc.

Dr. Wayne Berman is currently President of his own firm, Aeolus, Inc. He has a long history of research and published documents in the area of Asbestos-Related Risk. He has done extensive work for the U.S. EPA, as well as many states, including California. He is the author, with K.S. Crump of numerous articles and documents, such as: "Final Draft: Technical Support Document for a Protocol to Assess Asbestos-Related Risk" 2003 "Technical Support Document for a Protocol to Assess Asbestos-Related Risk" 2001 "The Asbestos Project Plan" 2005 for the U.S. EPA. Dr. Berman holds a Ph.D. in physical chemistry from the California Institute of Technology. He has more than 20 years experience solving environmental problems for both government and private clients. After graduate school, he joined the group at Clement Associates who pioneered procedures used to perform site risk assessments under the Federal Superfund Program. Many of these procedures are in common use today and Dr. Berman has been conducting such assessments since the beginning of the program. For many risk projects, Dr. Berman continues to develop and apply innovative procedures for evaluating chemical fate and transport to estimate exposure and assess risk. During his career, Dr. Berman has also evaluated the ways that common practices employed during site characterization potentially contribute to decision errors. He has conducted and published several studies in this area and has developed procedures for addressing data quality issues so that questionable practices can be identified and refined. This work includes the development of tools to facilitate broad application of the data quality objective (DQO) process to support design of cost-effective investigations that are carefully integrated with the way that the resulting data are analyzed. Dr. Berman is a recognized expert in the measurement of asbestos in environmental media, the environmental fate and transport of asbestos, and the assessment of asbestos-related risks. He has published and presented extensively on these topics and served on several state and federal expert panels addressing asbestos. Dr. Berman was principal investigator on a $1.2 million EPA project to develop mutually-consistent methods for the determination of asbestos in environmental media and a companion protocol for assessing asbestos-related risks. The study resulted in publication of an air method, a companion technical background document, and a soil-bulk method. The risk-assessment protocol was considered in an EPA-sponsored peer-review consultation in February, 2002.

Brody, Arnold

Tulane University Medical Center

Dr. Arnold Brody is a Professor in the Department of Molecular Biomedical Sciences at North Carolina State University. He has a B.S. in Zoology from Colorado State University, a M.S. in Functional Vertebrate Anatomy from the University of Illinois, and a Ph.D. in Cell Biology from Colorado State University. He performed his Post-doctoral study at Ohio State University before accepting his first faculty position as an Assistant Professor in the Pathology Department at the University of Vermont in 1978. After six years in Vermont, Dr. Brody moved to the National Institute of Environmental Health Sciences (NIEHS). While at the National Institutes of Health, Dr. Brody began his fundamental research on the mechanisms through which inhaled inhaled environmental agents cause lung disease. This also is where he began his own studies designed to explain how asbestos fibers cause fibrogenic and neoplastic diseases. While at the NIH, Dr. Brody also taught at Duke, the University of North Carolina and at North Carolina State University. After 15 years at the NIEHS, where Dr. Brody was head of the Lung Pathology Laboratory, he accepted the position as Professor of Pathology at Tulane in 1993 and in 1999, he was promoted to Vice Chair of the Department. Dr. Brody was the first investigator to establish that inhaled asbestos fibers are translocated to the interstitial compartments of the lung by active uptake of the alveolar epithelial lining cells. His work showed that lung macrophages are attracted to asbestos fibers through the activation of the 5th component of complement on alveolar surfaces. More recently, Dr. Brody's work has demonstrated that peptide factors that provide positive and negative growth

signals for epithelial and mesenchymal cells are stimulated by inhaled asbestos fibers, providing a mechanism for the increased cell proliferation and matrix production that are the hallmarks of asbestosis.

Case, Bruce

McGill University

Dr. Bruce Case is a pathologist and epidemiologist at McGill University in Montreal, Canada, where he holds the positions of tenured Associate Professor in Pathology and Associate Member in the Combined Department of Epidemiology, Biostatistics and Occupational Health as well as the School of Environment. Following his residency in pathology at McGill University he trained with Dr. Graham Gibbs and obtained the Diploma in Occupational Hygiene at McGill, and worked as a post-doctoral fellow and instructor at the Mount Sinai School of Medicine, New York, from 1980-83. While there he performed some of the first studies on asbestos-mediated free radical release, with the help of the Young Investigator's Award of the American Lung Association. On his return to McGill he joined with Corbett and Alison McDonald and Patrick Sébastien in the Dust Disease Research Unit: the focus of this group was the epidemiological study of diseases related to mineral fibre exposure using lung-retained fibre in exposure assessment. In 1986 he received the National Health Scholarship of NHRDP (Canada) for his work in the field. In 1988 he moved to the University of Pittsburgh, where he succeeded Dr. Philip Enterline as Director of the United States Environmental Protection Agency Center for Environmental Epidemiology, through their co-operative agreement with the University of Pittsburgh School of Public Health, where he was also Associate Professor of Epidemiology. Work included the assessment of mineral fibers in the lungs of American Children. He returned to McGill in 1992 and continues research, teaching, and clinical work there in Pathology, Epidemiology, Occupational Health and the McGill School of Environment. Dr. Case has participated in and given lectures to workshops, and provided peer reviews and advice for many national and international agencies and professional societies on the subject of the exposure assessment and health affects of mineral fibres, including NIOSH, the Environmental Protection Agency, the Centers for Disease Control (CDC, through ATSDR), the United States Consumer Product Safety Commission (CPSC), the International Agency for Research on Cancer (IARC), the International Commission on Occupational Health (ICOH), the British Occupational Hygiene Society (BOHS), the American Thoracic Society (ATS), the Geological Society of America (GSA), and the Collegium Ramazzini. He is on the Board of Directors and is currently Treasurer of the Canadian Association for Research on Work and Health (CARWH), and a member of the Program Committee of the Environmental and Occupational Health Assembly of the American Thoracic Society. Dr. Case currently reviews publications for a wide variety of journals in general medicine, environmental and occupational medicine, industrial hygiene, and risk analysis, including The Lancet, The New England Journal of Medicine, Risk Analysis, Gastroenterology, and Occupational and Environmental Medicine. His peer-reviewed research on asbestos and other mineral fibre and particle exposures and related diseases has been funded by American and Canadian public agencies including the American Thoracic Society (USA), EPA (USA), MRC/ CIHR (Canada), the National Cancer Institute (of Canada) and NHRDP/ Health Canada (Canada). He is an occasional consultant to Workman's Compensation boards in four Canadian provinces, to University investigators in other nations, to unions, to individual patients with asbestos-related disease(s), and to attorneys representing plaintiffs and/or defendants in asbestos litigation.

Churg, Andrew

University of British Columbia

Dr. Andrew Churg is Professor of Pathology at the University of British Columbia in Vancouver, BC. He obtained his PhD and MD from the University of Chicago, and did a fellowship in lung pathology with Charles Carrington at Stanford University. His laboratory has long focused on the effects of occupational and environmental agents on the lung. For many years he studied the relationship between asbestos fiber burden and disease, and the interactions of exogenous oxidants and particles in the lung. His current research efforts are devoted to chronic obstructive lung disease and encompass two areas: (1) the factors that control small airway remodeling, both that induced by cigarette smoke and that induced by air pollution particles and occupationally encountered dusts; (2) models of cigarette smoke-induced emphysema in laboratory animals.

Dement, John

Duke University Medical Center

Dr. John M. Dement is a Professor in the Division of Occupational and Environmental Medicine, Duke University Medical Center. Dr. Dement has conducted research concerning exposures and health effects of asbestos and other fibers for over 30 years. Prior to joining the Duke University faculty in 1993, Dr. Dement served in the U.S. Public Health Service for 22 years and held various research and management positions in the National Institute for Occupational Safety and Health (NIOSH) and the National Institute of Environmental Health Sciences (NIEHS). He has authored more than 50 peer-reviewed publications concerned with asbestos or man-made fibers. Dr. Dement is Certified in the Comprehensive Practice of Industrial Hygiene and holds a B.S. in Mechanical Engineering, an M.S. in Industrial Hygiene, and a Ph.D. in Industrial Hygiene/Epidemiology. He has published extensively on exposures and health risks associated with chrysotile asbestos. He has served on numerous boards and advisory bodies concerning asbestos and health effects including the World Health Organization, Working Group on Chrysotile in 1996 and the Finnish Institute of Occupational Health, International Workshop on Asbestos, Asbestosis and Cancer. Dr. Dement served as a member of the Board of Scientific Counselors for the National Institute for Occupational Safety and Health from1994 until 2003.

Dodson, Ronald

ERI Consulting Analytical

Dr. Ronald F. Dodson, Ph.D. received his B.A. in biology and general sciences and a M.A. in biology and chemistry from East Texas State University. His doctorate was from the Life Sciences Division of Texas A&M University with an emphasis in Biological Electron Microscopy. Dodson was on the faculty of Baylor College of Medicine for seven years before he was recruited to the University of Texas Health Center at Tyler and charged with beginning a formal research program. Dr. Dodson held titles at the University of Texas Health Center at Tyler including Chief of the Department of Cell Biology and Experimental Pathology, Chairman of the Department of Cell Biology and Environmental Sciences, Associate Director for Research, Director of the Occupational/Environmental Training Division, Co-Director of TIOSH, and Vice President for Research. He also was appointed as Professor of Biology (with tenure) at the University of Texas at Tyler in 1984. Presently, Dr. Dodson is President of Dodson Environmental Consulting, Inc. and serves as a Senior Consultant for ERI Consulting, Inc. He has served on numerous academic committees charged with compliance of local, state and federal regulations at the Health Center and in the University of Texas System. Dr. Dodson also was a member of the Texas Department of Health Advisory Committee that wrote the Asbestos in Public Rules for the State of Texas. He is a Fellow in the American College of Chest Physicians and the American Heart Association. His primary focus involves determination of dust levels in tissue, body fluids and environmental samples by light and electron microscopy. His laboratories have developed some of the techniques currently utilized for

Transmission Electron Microscopy analysis of asbestos fibers.

Donaldson, Kenneth

Napier University

Dr. Kenneth Donaldson is Professor of Respiratory Toxicology, The Medical School, University of Edinburgh where he is Co-director of the Edinburgh Lung and the Environment Group Initiative Colt Laboratory, a collaborative research Institute involving the Edinburgh University Medical School, Napier University and the Institute of Occupational Medicine, carrying out research into disease caused by inhaled agents, predominantly particles and fibres. He has 25 years experience of particle toxicology, much of which has concerned fibres including asbestos and man-made fibres. He has published 260 peer-reviewed papers, book chapters and reviews, of which more than 50 concern the toxicology of fibres. He is a member three government committees - COMEAP – Committee on the Medical Effects of Air Pollution which advises the government on the science of air pollution; EPAQS -Expert Panel on Air Quality Standards which provides independent advice to the government on air quality issues (ad hoc member); Advisory Committee on Hazardous Substance where he expert advice specifically on nanoparticles. He has acted as an advisor to WHO, EU, US EPA, UK HSE etc. and other international bodies on toxicology of particles and fibres. He has performed 28 years of research into the inhalation toxicology of all medically important particle types:- asbestos, man-made vitreous fibres, crystalline silica, nuisance dusts, ultrafine/nanoparticles, particulate air pollution (PM10) and organic dust as well as ozone and nitrogen dioxide. He is a registrant of the BTS/IOB Register of Toxicologists; Eurotox-registered toxicologist; Fellow of the Royal College of Pathologists and Fellow of the faculty of Occupational Medicine. He is co-author of 260 peer-reviewed scientific articles, book chapters and reviews on lung disease caused by particles and fibres and was awarded a DSc for research in the toxicology of particle-related lung disease. Dr. Donaldson is on the editorial board of 6 journals and is the Editor-in Chief of the journal Particles and Fibre Toxicology.

Egilman, David

Brown University

Dr. David Egilman, MD, MPH is a clinical associate professor in the Department of BioMed Community Health at Brown University. He completed residencies in Internal Medicine (board certified) and Preventive-Occupational Medicine (board certified) in addition to the National Institutes of Health Epidemiology Training Program. Dr. Egilman has published widely on issues of occupational health and safety, including scientific methodology and epidemiology concerning asbestos, with special attention to fiber type and low-dose risk. His current research includes the history and practice of warnings; epidemiology of medicine; occupational safety in the asbestos, petrochemical, and flavoring industries; consumer safety and tobacco and pharmaceutical products. Dr. Egilman's teaching at Brown has included the history of medical ethics and the duty to warn; the history of the development of knowledge of the health effects of asbestos including corporate knowledge; the history of the development of government regulations on occupational and environmental safety; and the history of the development of product warnings. Dr. Egilman is the founder and chair of the board of the non-profit organization, Global Health through Education Training and Service. He has served as a member of the board of the Citizens for Responsible Care and Research, the Committee on Health Based Exposure Limits to Toxic Substances (American Public Health Assoc.), the Rhode Island Committee for Health Rights in Central America, and the Board of Directors of the Brown Medical Association. Dr. Egilman is frequently asked to serve as an expert witness by both plaintiffs and defendants in asbestos litigation. He also has been retained by several companies to consult on asbestos and occupational health.

Everitt, Jeffrey

GlaxoSmithKline Pharmaceuticals

Dr. Jeffrey Everitt is the Worldwide Director of Comparative Biology & Medicine in the Department of Laboratory Animal Sciences at GlaxoSmithKline Pharmaceutical R&D. He also serves on the adjunct faculty in the Department of Pathology and Laboratory Medicine at the UNC School of Medicine in Chapel Hill, N.C. and in the College of Veterinary Medicine at North Carolina State University in Raleigh, NC. Dr. Everitt received his D.V.M. from Cornell University (1977) and completed a residency in pathology at the University of Pennsylvania (1980). Prior to assuming his position at GlaxoSmithKline in 2002, Dr. Everitt spent over 17 years on the senior scientific staff of the CIIT Centers for Health Research (formerly the Chemical Industry Institute of Toxicology) where he led a multidisciplinary program that studied the health effects of inhaled particulate. Throughout his professional career, Dr. Everitt has been active in numerous professional societies, including service on the Executive Council of the Society of Toxicologic Pathology, and on the Council of the Inhalation Specialty Section and the Toxicologic and Exploratory Pathology Specialty Section of the Society of Toxicology. Dr. Everitt is a Diplomate of the American College of Veterinary Pathologists and a Diplomate of the American College Laboratory Animal Medicine. He has been a member of National Toxicology Program pathology working groups since 1985 and has served as a consultant in toxicologic pathology to numerous academic, industrial, and governmental organizations including NIH, USEPA, NIEHS, IARC, NTP,and ILSI. Dr. Everitt's research interests include experimental and toxicologic pathology of the lung and kidney, particle-induced lung disease, and the development of animal models of human disease. He currently receives no external funding to support his work.

Ewing, William

Compass Environmental, Inc.

Mr. William Ewing is the Technical Director of Compass Environmental, Inc. in Kennesaw, GA. He is certified in the comprehensive practice of Industrial Hygiene by the American Board of Industrial Hygiene. He has practiced in the field for 28 years. He holds a BS in Biology from Washington & Lee University. He was formerly the Director of the Asbestos Information Center at the Georgia Tech Research Institute. Relative to asbestos, he has conducted field research to determine asbestos exposures, fiber release mechanisms, pathways of exposure, sampling methodology, and control measures to reduce or eliminate asbestos exposures. Much of his work has focused on asbestos exposure in the building trades, including service workers. He has personally inspected over 1200 buildings for asbestos-containing materials. Mr. Ewing has published 20 articles on subjects relating to asbestos identification, evaluation and control. Mr. Ewing served as the technical advisor to the Federal Advisory Committee convened by the EPA to develop the regulations pursuant to the Asbestos Hazard Emergency Response Act (AHERA). He served in a similar capacity for the EPA/OSHA Public Policy Dialogue for Asbestos in Public and Commercial Buildings. He has served as an external peer reviewer for revisions to the EPA Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations. He chaired the EPA advisory panel on Asbestos in Tall and Occupied Buildings. He has served as a peer reviewer for several EPA asbestos publications and research projects, including the Alternative Asbestos Abatement Evaluation Project (Ft. Chaffee, AR) in 2006. Mr. Ewing also served on the Asbestos Blue Ribbon Committee convened by the Global Environment & Technology Foundation, and was the primary technical author of the report Asbestos Strategies issued in 2003. Among his professional organizations, he is a member of the Academy of Industrial Hygiene, National Institute of Building Sciences, the New York Academy of Sciences, and a fellow member of the American Industrial Hygiene Association.

Frank, Arthur

Drexel University

Dr. Arthur L. Frank received his M.D. degree from the Mount Sinai School of Medicine and his Ph.D. in biomedical sciences from the City University of New York. He was trained in both internal medicine and occupational medicine and holds board certification in both fields. As a commissioned officer in the Public Health Service, he conducted research at the National Cancer Institute. His major research activities have included the study of occupational lung diseases such as asbestosis and silicosis, occupational cancers, especially those related to asbestos exposure, and has worked in the area of agricultural safety and health. Dr. Frank has been involved with asbestos issues since the late 1960s when he studied with Dr. Selikoff under whom he earned a PhD related to asbestos as well as having training in occupational medicine. He has published widely on asbestos topics. He has served on many advisory boards (NIOSH, EPA,OSHA, etc).

Gamble, John

Exxon Biomedical Sciences, Inc.

Dr. John Gamble recently retired from Exxon Biomedical Sciences, Inc., but is still active in his field. He received an A.B degree in biology from Central Methodist College, an A.M. degree from Oberlin College, did graduate study in Zoology at Duke University, received a M.S.P.H. degree from the School of Public Health, University of North Carolina, and a Ph.D. from the School of Public Health, University of North Carolina. His area of expertise is epidemiology.

Gibbs, Graham

Safety Health Environment International Consultants Corp.

Dr. Graham Gibbs is currently President of Safety Health Environment International Consultants Corporation. He is a graduate of Sir John Cass College, University of London, where he received a B.Sc. degree in geology and chemistry; and a graduate of McGill Univeristy , Montreal, Canada, where he received M.Sc. degree in Geological Sciences (Deans' Honours List) and a Ph.D. in Epidemiology & Medical Statics (Dean's Honours List). Dr. Gibbs has authored, or co-authored, over 100 publications. He is a Member of the Royal Society of Chemistry, is a Registered Occupational Hygienist - Canadian Registration Board of Occupational Hygienists, and is an Adjunct Professor, Department of Public Health Sciences, University of Alberta. He has served on many advisory committees and professional societies.

Goldstein, Allan

Pulm. Assoc. of the SE

Dr. Allan Goldstein is a practicing pulmonologist who serves as a medical expert in occupational pneumoconiosis. He graduated from Ohio State University in 1965, was Board Certified in Int. Med in 1972 and in Pulm. Dis. in 1974. He has been a B-reader since 1981. He has authored a report of the State of the Art relative to the railroad industry and asbestos exposure. He is FACP, FCCP and President of the Medical Association of the State of Alabama. He serves on the Board of Medical Examiners.

Gunter, Mickey

University of Idaho

Dr. Mickey Gunter is a professor in the Department of Geological Sciences at the University of Idaho. He received his MS and PhD degrees from Virginia Polytechnic Institute and State University. He is an expert on optical mineralogy and has authored many papers on asbestos. Dr. Gunter is an elected Fellow in the Mineralogical Society of America and has recently participated in an ATSDR panel reviewing asbestos toxicity. In addition to his academic duties, he has provided consultation to the EPA in matters related to mineralogy.

Guthrie, George

Los Alamos National Laboratory

Dr. George Guthrie is a mineralogist/geochemist and is the Los Alamos National laboratory program director for fossil energy and environment research, which includes a broad portfolio of research efforts related to the extraction and utilization of fossil fuels as well as to the scientific understanding that enables a minimum environmental impact. Research in these activities is conducted in technical divisions across Los Alamos, including earth sciences, chemistry, materials science, and bioscience. Dr. Guthrie received his AB in geology (Harvard, 1984) and PhD in mineralogy/crystallography (Johns Hopkins, 1989). He joined the Earth and Environmental Sciences Division as a Director¹s-funded postdoctoral fellow in 1989 and became a staff member in 1992. His research interests include the geochemistry of mineral-fluid interactions using techniques such as electron microscopy, diffraction methods, and computer modeling. He is
particularly interested in environmental challenges, including geochemical evolution of cement-based composite, health effects of inhaled minerals, and CO2 sequestration. Dr. Guthrie is a fellow in the Mineralogical Society of America and received an R&D100 Award for work on the geochemistry of concrete. He is author or co-author on more than 40 peer-reviewed publications, editor of one book, and co-author on 2 patents. Dr. Guthrie recently served on an IOM committee charged with assessing the causal association between various cancers and asbestos.

Hardin, Bryan

Veritox, Inc.

Dr. Bryan Hardin has expertise in public health and toxicology. He is a retired Assistant Surgeon General and former Deputy Director, NIOSH; Fellow, Academy of Toxicologic Sciences. Currently, he is a Principal in Veritox, Inc., a private consulting company. His education includes: PhD in Environmental Health Sciences, University of Cincinnati; MS in Zoology, University of Oklahoma; BS in Mathematics, University of Oklahoma. 28 years experience in occupational safety and health, including laboratory toxicology research, hazard identification and risk assessment, development and implementation of science-based public policy, and senior-level scientific and programmatic management of a major federal agency. His prior service as a member of EPA's EDSTAC, Chair of the TSCA Interagency Testing Committee, and numerous other federal interagency and international, (e.g., WHO, IARC, advisory bodies or task groups). Dr. Hardin is a member of the American College of Occupational

and Environmental Medicine, American College of Toxicology, American Industrial Hygiene Association, Society of Toxicology, Teratology Society; member of AIHA Emergency Response Planning Committee.

Harris, John

LabCor Portland, Inc

Mr. John Harris attended the University of Texas at Austin and received a BA degree in Microbiology in 1975. He was employed at the Texas Department of Health in Austin, Texas as a microbiologist in 1975. He worked at that capacity until 1978 when he began his career in electron microscopy as a transmission electron microscopy (TEM) analyst. After earning his masters degree in Biomedical Sciences from the University of California at Berkeley in Public Health in 1984, he became involved with asbestos identification in 1988 as a TEM Lab Manager with the RJ Lee Group in Berkeley, California. He promoted to TEM Lab Manager at PHH, Inc. of Seattle, Washington in 1991 and purchased the company in 1992 with two other partners. Under his direction, the new company, LabCor, Inc., quickly became an established and recognized laboratory for asbestos analysis. In 2006, he began a second company, LabCor Portland, Inc., which continues providing analysis services to the asbestos community. He has a wide and varied experience in the preparation and analysis of all sample matrices requiring asbestos and non-asbestos identification.

Hertz-Picciotto, Irva

University of California - Davis

Dr. Irva Hertz-Picciotto, is Professor at the Department of Epidemiology and Preventive Medicine at the University of California, Davis. Dr. Hertz-Picciotto received her Master's of Arts in Biostatistics, a Ph.D. in Epidemiology and a Master's of Public Health from the University of California, Berkeley. She has held positions as Assistant, Associate and Full Professor at the University of North Carolina, Chapel Hill, and most recently joined the Department of Epidemiology and Preventive Medicine at the University of California, Davis. Dr. Hertz-Picciotto serves on editorial boards for the two major journals in her field, namely Epidemiology and the American Journal of Epidemiology, as well as for Human and Ecological Risk Assessment. She served as Chair of the Institute of Medicine/National Academy of Science's Veterans and Agent Orange: Update 2000 committee, and is currently Chair of the IOM/NAS Update 2002 committee. Dr. Hertz-Picciotto is also a member of the Board of Scientific Counselors of the U.S. National Toxicology Program, the Food Safety in Europe Working Group sponsored by the International Life Sciences Institute, and the Carcinogen Identification Committee of the California Governor's Scientific Advisory Board. She is currently President of the International Society for Environmental Epidemiology, and was recently a delegate to the NIEHS-sponsored U.S.-Vietnam Scientific Conference on the Environmental and Health Effects of the Vietnam War. She founded the Center on Environmental Health and Susceptibility at the University of North Carolina, Chapel Hill. For over ten years, she has taught methods for epidemiologic data analysis in Chapel Hill, and has taught courses on four continents. Dr. Hertz-Picciotto has published seminal papers on the use of epidemiology in quantitative risk assessment and is internationally renowned for her work in this field, as well as occupationally related cancer, environmental exposures, reproductive outcomes, and methods for epidemiologic research. Her current and recent research is or has been supported by the US NIEHS (National Institute of Environmental Health Sciences), NCI (National Cancer Institute), the M.I.N.D. (Medical Investigations of Neurodevelopmental Disorders) Institute, the U.S. EPA, the Hawaii Heptachlor Research and Education Foundation, and the Health Effects Institute.

Hochella, Michael

Virginia Polytechnic Institute and State University (Virginia Tech)

Dr. Michael Hochella is currently Professor of Geochemistry and Mineralogy at Virginia Tech. He received his PhD degree from Stanford University in 1981 and has taught for 10 years at Stanford and for the last 14 years at Virginia Tech. He is a former president of the Geochemical Society and has received the Dana Medal of the Mineralogical Society of America, the Alexander von Humboldt Research Award, and a Senior Fulbright Fellowship. He was awarded Virginia's Outstanding Scientist of 2005 by Gov. Mark Warner. In 2006, he was elected AGU Fellow. Dr. Hochella's research interests include: elucidating the role that nanoscience and mineral surface geochemistry/ biogeochemistry plays in major aspects of the earth sciences, including especially environmental issues and biogeochemical cycling of the elements; microbe interactions from both geochemical and biochemical perspectives, applications to nutrients and toxins in the environment and their mobility and understanding interactions between mineral surfaces and species in solution with applications to aqueous system transport. His teaching interests are wide ranging, from Earth systems science and sustainability (geo- and bio-aspects), to introductory, mineralogical, environmental, and resource geology, to advanced graduate level courses in his fields of specialty, including nanoscience and technology, mineral surface geochemistry, mineral-microbe interaction, mineralogy, crystallography, bulk and surface atomic structure analysis, and the theory, design, and use of X-ray, electron, ion, and laser-beam spectroscopic, diffraction, and analytic instrumentation. Dr. Hochella's past and present funding sources include American Chemical Society, Chevron, the Department of Energy, Gas Research Institute, the National Science Foundation, Schlumberger, Stanford University, Texaco, US Geological Survey and Virginia Tech.

Kagan, Elliott

Uniformed Services University of Health Sciences

Dr. Elliott Kagan is a licensed practicing physician in Maryland and has an MB, BCh degree from the University of the Witwatersrand in Johannesburg, South Africa, equivalent to an MD in the United States. He is a Fellow of the Royal College of Pathologists of Great Britain and is certified by the American Board of Pathology (Anatomic and Clinical) and the American Board of Allergy and Immunology. His expertise is in the fields of pathology, immunology, and cell and molecular biology. He is currently Professor of Pathology, Preventive Medicine & Biometrics, and Emerging Infectious Diseases at the Uniformed Services University of the Health Sciences (USUHS) in Bethesda, MD. He has vast experience in the area of asbestos-related disease. Much of this experience was obtained during his tenure at the National Research Institute for Occupational Diseases (NRIOD) in Johannesburg. It was at the NRIOD, in the late 1950s, that Dr. J Christopher Wagner first conclusively demonstrated the relationship of asbestos exposure to the development of a rare tumor – malignant mesothelioma. Dr. Kagan's experience with worker compensation cases referred to the NRIOD was unique and unlike that of pathologists in the US, since South Africa was an early and major producer of all three commercial asbestos fiber types and case referrals included occupational exposures to different commercial asbestos fiber types. Elliott Kagan has published extensively in first-rate scientific journals on the biological and clinical effects of amphibole and chrysotile asbestos exposure. His work has involved both in vitro and inhalation studies of asbestos exposure. He was the recipient of two prior EPA research grant awards and is also the recipient of NIH and DoD research grant awards. He is a member of the Editorial Board of the Journal of Organ Dysfunction and is an invited reviewer for several peer-review journals including the American Journal of Respiratory and Critical Care Medicine, the American Journal of Respiratory Cell and Molecular Biology, Cancer Research, Oncogene, and the Proceedings of the National Academy of Sciences USA. Dr. Kagan has served on a number of NIH, NCI, and DoD Study Sections as well as on scientific advisory panels for the Bureau of Mines, the Veterans Administration Merit Review Program, the Nebraska Cancer and Smoking Diseases Research Program, the Louisiana Board of Regents' Support

Fund Research and Development Program, and the Cooperative Grants Program of the U.S. Civilian Research and Development Foundation. Dr. Kagan also served on an Expert Consultant Panel on the Health-Related Effects of Asbestos in Humans appointed by the American Medical Association Council on Scientific Affairs. He is currently a member of the USUHS Institutional Review Board that oversees scientific research on human subjects at that institution. He has been a Visiting Professor at a number of universities both nationally and internationally, was a US National Academy of Sciences Workshop invitee, and is a member of numerous scientific and professional societies. Dr. Kagan has provided advice on the important role South Africa continues to play in furthering our understanding of the scientific and medical aspects of asbestos-related disease.

Kaminski, Naftali

Univ of Pittsburgh

Dr. Naftali Kaminski, MD, is the Director of the Simmons Center and the Functional Genomic Resource Center and Associate Professor of Medicine, Pathology and Human Genetics at the University of Pittsburgh Medical School. He received his medical degree from the Hebrew University - Hadassah Medical School in Jerusalem, Israel and completed an internship and residency in internal medicine at Hadassah Mount-Scopus University Hospital in Jerusalem, and a pulmonary fellowship in pulmonary medicine at Sheba Medical Center in Tel-Hashomer, Israel. Dr. Kaminski also completed a postdoctoral fellowship at the Cardiovascular Research Institute (CVRI) in the University of California, San Francisco (UCSF). During this period, Dr. Kaminski also trained in functional genomics and microarray technology at the Functional Genomics Laboratory at Roche Bioscience, Palo-Alto, Calif. Dr. Kaminski was the head of Functional Genomics at Sheba Medical Center before being recruited to the University of Pittsburgh. Dr. Kaminski has a long time commitment to studying the basic molecular networks that underlie pulmonary fibrosis and has a strong interest in understanding gene environment interactions in the pathogenesis of pulmonary fibrosis. He has pioneered the application of microarray technology to lung fibrosis and has applied this technology in a variety of models and disease states. Dr. Kaminski has also been actively involved in developing bioinformatic approaches to analysis of microarray data and in educating biologists in bioinformatics. Dr. Kaminski is a strong advocate for implementation of Systems Biology approaches in translational research. Under his leadership the Simmons Center for Interstitial Lung Disease has become one of the leading centers in the US, following up more than 1300 patients with interstitial lung disease. Dr. Kaminski is funded by the NIH and is also the PI of the recently funded Pennsylvania State Registry of Pulmonary Fibrosis. Dr. Kaminski has authored more than 60 publications and book chapters and was the program chair for Respiratory Cell and Molecular Biology Assembly at the American Thoracic Society.

Kane, Agnes

Brown University

Dr. Agnes B. Kane is Professor and Chair of the Department of Pathology and Laboratory Medicine at Brown University. She received her B.A. degree from Swarthmore College and her M.D. and Ph.D. degrees from Temple University School of Medicine. She is board-certified in anatomic pathology and has studied murine models of asbestos-induced disease. She has served as scientific advisor and invited participant in workshops on fiber toxicology and nanotechnology for NIOSH, US EPA, NAS, IOM, NTP, and ILO and has participated in three IARC Working Groups on the Evaluation of Carcinogenic Risks to Humans. She is the Director of the Training Program in Environmental Pathology at Brown University, now in its 15th year. Her research focuses on the potential health effects of environmental and occupational exposure to asbestos fibers, mixed dusts, and nanomaterials. Her laboratory has developed a murine model of asbestos-induced malignant mesothelioma that reproduces the morphologic and molecular characteristics of the human disease. This murine model will be used to develop new strategies for prevention and treatment of asbestos-related cancer.

Kelsey, Karl

Harvard School of Public Health; Harvard Medical School

Dr. Karl Kelsey, MD, MOH, is Professor of Cancer Biology and Environmental Health at the Harvard School of Public Health, and is also Associate Professor of Medicine at the Harvard Medical School. He is interested in the application of laboratory-based biomarkers in chronic disease epidemiology and tumor biology. The goals of his work include a mechanistic understanding of individual susceptibility to exposure-related cancers. In addition, his laboratory is interested in tumor biology, investigating somatic alterations in tumor tissue from patients who have developed exposure-related cancers. This work involves using an epidemiologic approach to characterize epigenetic and genetic alteration of genes in the causal pathway for malignancy. Active work includes several studies of individual susceptibility to cancer. Dr. Kelsey's laboratory is investigating susceptibility to smoking-related lung cancer, studying multi-racial and ethnic populations. In addition, the laboratory is also studying inherited susceptibility to brain tumors and pancreatic cancer. Major case control studies that are ongoing in the laboratory include studies designed to understand inherited and acquired susceptibility in head and neck cancers. The laboratory is also involved in a case control study of asbestos-associated mesothelioma, and arsenic exposure, cigarette smoking and bladder cancer. Considerable work is being devoted to understanding the mechanisms of action of both asbestos and arsenic including their ability to effect promoter methylation and gene silencing in carcinogenesis. Dr. Kelsey received his MD from the University of Minnesota and Masters of Occupational Health from Harvard University.

Kleinman, Michael T.

University of California, Irvine

Dr. Michael T. Kleinman has been studying the health effects of exposures to environmental contaminants found in ambient air for more than 30 years. He holds a MS in Chemistry from the Polytechnic Institute of Brooklyn and a Ph.D. in Environmental Health Sciences from New York University. He is a Professor and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine at University of California, Irvine. Prior to joining the faculty at U.C.I. in 1982, he directed the Aerosol Exposure and Analytical Laboratory at Rancho Los Amigos Hospital in Downey, CA. He has published more than 85 articles in peer-reviewed journals dealing with the uptake and dosimetry of inhaled pollutants in humans and laboratory animals, and effects on cardiopulmonary and immunological systems after controlled exposures to ozone and other photochemical oxidants, carbon monoxide and ambient or laboratory-generated aerosols. He recently chaired a National Academy committee to examine issues in protecting deployed US Forces from the effects of chemical and biological weapons. Dr. Kleinman's current studies focus on cardiopulmonary effects of concentrated ambient ultrafine, fine and coarse particles. Specifically, Dr. Kleinman is currently the co-principal investigator of an NIH-funded investigation of the effects of environmental PM on children with asthma. Dr. Kleinman also uses animal models (mice that are genetically predisposed to cardiopulmonary disease, aged rats as a model of aging human populations and a mouse model of allergic airways disease) to examine biological mechanisms of effects of inhaled air contaminants on the lungs and heart of normal and diseased individuals. Recent studies of the offspring of animals that were exposed to inhaled metal-containing particles demonstrate that in utero exposures may have important effects on the developing organism. Dr. Kleinman is a consultant to the U.S. EPA Science Advisory Board and currently serves as the Chair of the California Air Quality Advisory Committee, which reviews California's air quality criteria documents.

Lee, Richard

RJ Lee Group, Inc.

Dr. Richard Lee is the president of RJLG and has been involved in the development of methods for the identification of asbestos and other airborne particles for more than 30 years. He authored the first computer software for the analysis of electron diffraction patterns and the automated sizing and chemical analysis of asbestos and other particles. He was an active participant in the first ASTM committee whose goal was to develop and test a TEM method for the analysis of asbestos; he was a co-author of the publication that resulted. Dr. Lee has served, from time to time, as an advisor to EPA for more than 25 years, beginning with the design of an EPA laboratory for the analysis of asbestos and other particulate, and served as a peer reviewer/consulting expert in the development and writing of EPA's Yamate method. He authored the TEM analysis method instituted as part of the AHERA rules. He performed the laboratory analysis underlying more than 30 EPA projects, including EPA's assessment of airborne asbestos concentrations in public buildings, and has served as a peer reviewer on other EPA projects. He was a member of the HEI peer review panel to assess the significance of asbestos in public buildings, and was one of the authors of the landmark report that resulted from that review. Dr. Lee and his staff actively consulted with and supported EPA Region 2 in evaluating contamination in NYC buildings impacted by the Events of 9/11. He and his staff designed, implemented, provided oversight and conducted sampling and laboratory analyses for building remediation. He and his staff reported project status and results to EPA Region 2 on a weekly basis during the course of this multi-year study. He and his staff actively supported EPA's Office of Research and Development in the development of a method to evaluate dusts from the Lower Manhattan district associated with the World Trade Center disaster. He and his staff supported EPA's investigation of potential emissions of tremolite asbestos from the Southdown Quarry in New Jersey. He has served on ASTM committees to define methods for the analysis of asbestos. He has published the most extensive survey of asbestos concentrations in public buildings. Dr. Lee has served as an expert witness in state and federal courts in numerous asbestos related cases over the last twenty years, primarily on behalf of defendants in asbestos property damage litigation, including WR Grace.

Lemen, Richard

National Institute for Occupational Safety and Health

Dr. Richard Lemen is a former Assistant Surgeon General of the United States. Since retiring from the United States Public Health Service in 1996, has been a private consultant engaged in issues involving the analysis of risks associated with occupational and environmental health. Dr. Lemen was also the Acting Director and the Deputy Director of the National Institute for Occupational Safety and Health before his retirement. He has been a practicing epidemiologist for over thirty-five years. He holds a Bachelor of Arts degree from Central Methodist College in Zoology and Chemistry; Master's of Science Degree in Public Health from the University of Missouri in the field of epidemiology; PhD in epidemiology from the University of Cincinnati; and completed the Scholar Program from the Public Health Leadership Institute of the Schools of Public Health, University of California. From 1967 to 1969, he served in the US. Army; from 1970 through 1996 he served in the United States Public Health Service (USPHS). Throughout he has studied asbestos-related diseases. He authored the initial manuscript for the International Agency Research on Cancer (IARC) Working Group on the Evaluation of Carcinogenic Risks of Chemicals in Man: Asbestos that met in Lyon, France in 1976. He has presented papers throughout the United States and the World on occupational health issues including a presentation on the epidemiology of asbestos-related diseases and the biological effects of asbestos. During his government service he represented the Institute many times in testimony before the United States Congress on issues of occupational health including asbestos-related diseases. He was also the personnel representative of the Secretary of the Department of Health and Human Services (DHHS) to the Asbestos Hazards Safety Task Force of the United States Department of Education. He also served as the Chairman of the DHHS Committee on Health Effects of Ingested Asbestos and as Chairman of the OSHA/NIOSH Task Force Review of Occupational Exposure to Asbestos. During the course of his service with the USPHS, he was awarded the Distinguished Service Medal and the Meritorious Service Medal, the two highest honors bestowed by the USPHS on Commissioned Officers. He also received the Surgeon General's Exemplary Service and several Commendation Medals, one of which was for work on asbestos epidemiology between 1970 and 1980. He also received the Alice Hamilton Science Award for Occupational Safety and Health, the highest science award of the National Institute for Occupational Safety and Health and the James P. Keogh Award for Outstanding Service in Occupational Safety and Health presented by NIOSH. Since his retirement, he has taught graduate level classes on environmental and occupational health issues, including asbestos, at the Rollins School of Public Health at Emory University in Atlanta, Georgia. He has also testified in litigation on behalf of persons afflicted with asbestos-induced disease. Dr. Lemen has also published many articles in the peer-reviewed medical literature regarding asbestos in general and chrysotile in particular including an article in 1996 reviewing medical issues related to occupational exposure to chrysotile asbestos and cancer risk. His latest publications on asbestos deal with the risks of disease to brake-repair workers and mesothelioma as caused by exposures to chrysotile asbestos (2005) and risks of asbestos-related disease in brake repair workers (2004). Dr. Lemen has most recently published a chapter in the new book Asbestos – Risk Assessment, Epidemiology, and Health Effects (2006). His chapter is titled "Epidemiology of asbestos-related diseases and the knowledge that led to what is known today".

Lippmann, Morton

New York University School of Medicine

Dr. Morton Lippmann is a Professor of Environmental Medicine at the New York University (NYU) School of Medicine. He holds a Ph.D. (NYU, 1967) in Environmental Health Science, an S.M. (Harvard University, 1955) in Industrial Hygiene, and a B.Ch.E. (The Cooper Union, 1954) in Chemical Engineering. At NYU, he directs a research program on Human Exposure and Health Effects, and the EPA-supported Particulate Matter Health Effects Research Center. He has been the recipient of numerous awards for his research and contributions in aerosol science and pulmonary physiology, human exposure assessment and dosimetry, chemical transformations in the atmosphere, population studies of exposure-response relationships in occupational and community cohorts, and factors affecting the toxicity of airborne fibers. Much of this research has been focused on specific chemical agents, notably ozone, sulfuric acid, and asbestos. Dr. Lippmann is a past President of the International Society of Exposure Analysis (1994-1995), past Chairman of: the American Conference of Governmental Industrial Hygienists (1982-1983); the EPA Science Advisory Board's Executive Committee (2000-2001); EPA's Advisory Committee on Indoor Air Quality and Total Human Exposure (1987-1993); and EPA's Clean Air Scientific Advisory Committee (1983-1987). He has also chaired and been a member of numerous National Research Council committees, including committees on the airliner cabin environment and the health of passengers and crew, synthetic vitreous fibers, measurement and control of respirable dust in mines, indoor pollutants, toxicity data elements, and in-vivo toxicity testing of complex mixtures. His publications include over 290 research and review papers in the scientific literature and two reference texts on environmental health science.

Marsh, Gary

University of Pittsburgh

Dr. Gary M. Marsh is Professor of Biostatistics at the University of Pittsburgh, Graduate School of Public Health. He received his B.S. degree in Mathematics (cum laude) in 1973 from the University of Pittsburgh and his M.S. (Hygiene) and Ph.D. degrees in Biostatistics in 1974 and 1977 from the University of Pittsburgh, Graduate School of Public Health (GSPH). Dr. Marsh has more than 150 publications in the areas of biostatistics, occupational/environmental epidemiology, quantitative risk assessment, statistical computing and health services evaluation. He is the senior author of the computer software package, OCMAP (Occupational Cohort Mortality Analysis Program), which is used as a standard analytic tool by more than 150 domestic and 40 foreign institutions involved in occupational health research. Dr. Marsh is also developer of the Mortality and Population Data System (MPDS), a repository and retrieval system for National Center for Health Statistics (NCHS) and U.S. Census Bureau data, which is regularly accessed by scores of domestic occupational and environmental health researchers. Dr. Marsh directs occupational epidemiologic studies to investigate the long-term health effects of exposure to such agents as man-made mineral fibers, formaldehyde, acrylamide, acrylonitrile, arsenic, chloroprene, petrochemicals, aromatic amines and pharmaceuticals. In addition, he conducts environmental epidemiologic studies of communities exposed to industrial pollutants or to hazardous waste site materials and is involved in basic methodological research related to longitudinal data analysis and quantitative risk assessment. He also directs programs of biostatistical support for the health outcome research and quality improvement areas of large health maintenance organizations, and for the occupational and environmental health areas of corporations and trade organizations. Dr. Marsh teaches graduate-level courses in applied biostatistics, sampling theory and meta-analysis and directs several masters and doctoral level students. Within the GSPH, he established the Biostatistics Consulting Laboratory and directs the National Center for Health Statistics data sharing program. Dr. Marsh is a Fellow of the American College of Epidemiology, and an active member of the American Statistical Association, the Biometric Society, the Society for Occupational and Environmental Health, the International Society for Environmental Epidemiology, the Society for Epidemiologic Research, the International Commission on Occupational Health and British Occupational Health Society. He served as a charter

member of the National Institute for Occupational Safety and Health (NIOSH) Safety and Occupational Health Study Section, the National Academy of Sciences/ Institute of Medicine Committee to Evaluate the Health Consequences of the Persian Gulf War, and the International Agency for Research on Cancer (IARC) Working Group to evaluate the carcinogenicity of man-made vitreous fibers. Dr. Marsh also holds prominent positions on several governmental, academic and corporate scientific advisory boards and committees.

McClellan, Roger

Dr. Roger McClellan

Dr. Roger O. McClellan received his DVM from Washington State University in 1960 and has more than 4 decades of experience in the fields of inhalation toxicology and risk assessment. He is the author of more than 350 papers and edited 10 books in these fields including the 2 leading texts on inhalation toxicology/respiratory toxicology. He is a Diplomate, by examination, of the American Board of Toxicology and American Board of Respiratory Toxicology and a Fellow of the Academy of Toxicological Sciences and Society for Risk Analysis. He currently is, or has been, an adjunct faculty member at 10 major research universities. Dr. McClellan is an elected member of the Institute of Medicine of the National Academy of Sciences. Dr. McClellan currently works as an Advisor in Inhalation Toxicology and Human Health Risk Analysis from his home office in Albuquerque, NM. He divides his time between pro bono service and work for fee for service clients in government and the private sector. Dr. McClellan has served on numerous NRC Committees including Committee on Toxicology (Chair for 7 years), Committee on Environmental Justice, and the Committee that prepared "Science and Judgment in Risk Assessment." Dr. McClellan has served on numerous EPA Advisory Committees from the founding of EPA to the present under every EPA Administrator including: Chairing Environmental Health Committees and Clean Air Scientific Advisory Committee and the committees that reviewed the Cancer Risk Assessment Guidelines promulgated in 1986 and proposed for promulgation in 2003. He has served on previous CASAC panels reviewing each of the Criteria Pollutants including ozone. Dr. McClellan is currently serving on an Advisory Committee to the CDC Center for Environmental Health Research and on the DOE's Biological and Environmental Research Advisory Committee. Dr. McClellan is a strong proponent of integrating information from multiple sources: epidemiological studies, controlled human exposure investigations, laboratory animal bioassays and mechanistic investigations to assess human health risks. His expertise in inhalation toxicology, inhalation dosimetry modeling, carcinogenesis, comparative medicine, biologically-based dose-response modeling, and quantitative risk assessment are directly relevant to review of the science base for ozone.

McConnell, Ernest

ToxPath, Inc.

Dr. E. E. McConnell is president of ToxPath, Inc., a consulting firm in Raleigh, NC, that specializes in experimental toxicology and pathology. Before becoming a consultant, Dr. McConnell was director of the Division of Toxicological Research and Testing Program, National Toxicology Program at the National Institute of Environmental Health Sciences (NIEHS). He received his D.V.M. from Ohio State University and his M.S. in pathology from Michigan State University. He completed his residency in comparative pathology at the Armed Forces Institute of Pathology, Walter-Reed Army Medical Center. Dr. McConnell's area of expertise is in toxicology comparative pathology and carcinogenesis. He is a diplomate of the American College of Veterinary Pathologists and the American Board of Toxicology. He recently completed many years of service as chair of EPA's FIFRA Science Advisory Panel. He has served two terms as a member of the National Research Council (NRC) Committee on Toxicology and on several NRC committees, including the Subcommittee on Manufactured Vitreous Fibers. He has served on a large number of other advisory panels including: Member, EPA Science Advisory Board Executive Committee, from 1993-1999; Panel Member, EPA Science Advisory Board, EPA Proposed Guidelines for Carcinogenic Risk Assessment, 1997.

Meeker, Gregory

US Geological Survey

Mr. Gregory Meeker is a research scientist and manager of the Electron Microbeam Laboratory at the U.S. Geological Survey in Denver, Colorado. He is also Project Chief for the USGS Earth Materials and Human Health Project. His current research focuses on detailed studies of the mineralogy and morphology of fibrous and asbestiform amphiboles including those that triggered a major EPA Superfund action in Libby, Montana. Mr. Meeker was a principle investigator in the USGS study of the dusts generated by the collapse of the World Trade Center and he served as a member of the EPA World Trade Center Expert Technical Review Panel. He also served on two EPA technical panels to develop methods for the analysis of asbestos-contaminated vermiculite attic-insulation. Other recent investigations include studies of naturally occurring asbestos in California, and environmental studies of sedimentary materials deposited as a result of Hurricane Katrina. His research interests involve the application of microscopy and microanalysis to the fields of geochemistry, mineralogy, volcanology, and environmental geology. Prior to joining the USGS in 1989, he worked for Charles Evans & Associates in Redwood City, California as a Senior Research Analyst in materials analysis. He began his professional career at the California Institute of Technology in the Department of Earth and Planetary Sciences where he studied meteorites and lunar materials with the electron microscope, electron microprobe, and ion microprobe. Mr. Meeker is a Past President of the Microbeam Analysis Society, and has twice been a National Tour Speaker for that organization. His most recent tour topic was the composition of the dusts produced by the September 11th attack on the World Trade Center. He holds a Master of Science degree in geology from California State University, Los Angeles.

Millette, James

MVA Scientific Consultants

Dr. James R. Millette is an Executive Director of MVA Scientific Consultants, an independent analytical laboratory located in Duluth, Georgia. Dr. Millette has been involved in environmental/toxicology/asbestos studies since 1972, primarily using microscopy analysis techniques. He has degrees in physics, environmental science and a Ph.D. from the School of Engineering, University of Cincinnati. Previous work by Dr. Millette includes 11 years as a research scientist at the U.S. Environmental Protection Agency Research Center in Cincinnati, Ohio and 5 years at McCrone Environmental Services in Atlanta, Georgia performing and supervising analysis of particulate by microscopic techniques. Dr. Millette has over 60 publications that have appeared in a number of journals including Environmental Health Perspectives, Journal of Analytical Toxicology, Applied Occupational and Environmental Hygiene and others. He has presented reports of his scientific work at a number of national and international meetings, including conferences of the American Academy of Forensic Sciences, American Industrial Hygiene Association, American Society for Testing and Materials, Electron Microscopy Society, and several Asbestos Symposia of the Georgia Tech Research Institute. Dr. Millette has expertise in environmental fate and transport, environmental sampling, detection methods including microscopy, analysis methods including fiber characterization and counting, exposure evaluation and asbestos fiber release and resuspension. He currently teaches the only formal course in the country on the analysis of asbestos by transmission electron microscopy. He has been teaching this course since 1987. Dr. Millette is Vice-chair of the ASTM D22.07 subcommittee on asbestos analysis and has participated in numerous review panels including those for the U.S. EPA (AHERA, Vermiculite, Demolition Planning), U.S Army Corps of Engineers and the Health Effects Institute – Asbestos Research (HEI-AR). Recently Dr. Millette has participated on asbestos review panels for the Connecticut Academy of Science and Engineering (2004) and ATSDR (2006).

Nolan, Robert

City University of New York

Dr. Robert P. Nolan is currently the Deputy Director of the Center for Applied Studies of the Environment at The Graduate School and University Center of the City University of New York. He holds a B.A. in Chemistry from Rutgers University and a M. Phil and a Ph. D. in Chemistry from the City University of New York. His area of research is the effects of agents in the environment. Dr. Nolan has pursued research pertaining to the health effects of asbestos. He is a part of a team of scientists performing an assessment of the risk of asbestos-related cancer to the general population of Lower Manhattan after the release of a tremendous amount of asbestos containing dust into the ambient air of Lower Manhattan in the aftermath of the September 11th attacks. Professional affiliations include the Chemists' Club of New York, Federation of American Scientists, the Harvey Society, the Mineralogical Society of America, Société de Chimie de Industrielle, and the Canadian Mineralogical Association.

Ortiz, Luis

Univ of Pittsburgh

Dr. Luis A. Ortiz, MD, is an Associate Professor and Director of the Division of Occupational and Environmental Medicine at the Department of Occupational and Environmental Health at the School of Public Health at the University of Pittsburgh. He also has a secondary appointment in the Division of Pulmonary Allergy and Critical Care Medicine at the University of Pittsburgh. Dr. Ortiz earned his medical degree from the Universidad Pontificia Bolivariana in Medellín, Columbia and completed his residency at Tulane University Medical Center. He completed his fellowship in pulmonary and critical care medicine at the University of Texas' Health Science Center and MD Anderson Cancer Center in Houston. Doctor Ortiz is a pulmonologist who directs the Division of Occupational and Environmental Medicine at the University of Pittsburgh. Doctor Ortiz focuses his research on mechanisms that mediate the development of lung fibrosis. In particular, his laboratory has contributed to this field with the development of mouse models of pulmonary fibrosis (upon administration of bleomycin or silica) and most recently with the concept that bone marrow derived stem cells (MSCs) are fundamental contributors to the repair of the injured lung. Dr. Ortiz is a member of several professional organizations including the American Thoracic Society and the European Respiratory Society, and he is a fellow in the American College of Chest Physicians. He has authored more than 50 journal articles, abstracts and book chapters, and has made more than 30 presentations nationally and internationally. Dr. Ortiz has a long-standing interest in research and management of idiopathic as well as secondary pulmonary fibrosis.

Paustenbach, Dennis J.

Chemrisk, Inc

Dr. Dennis Paustenbach is a board-certified toxicologist and industrial hygienist with nearly 25 years of experience in risk assessment, environmental engineering, ecotoxicology, and occupational health. He is currently the President of Chemrisk, Inc., a consulting firm which specializes in human and ecological risk assessment and risk analysis of pharmaceuticals and medical devices. He was previously a Vice President of Exponent, and prior to that, President and Chief Executive Officer (CEO) of McLaren-Hart Environmental, a nationwide consulting firm of 600 persons. In 1985, he founded ChemRisk, formerly the nation's largest human and ecological risk assessment group. Dr. Paustenbach specializes in the areas of industrial and environmental toxicology, occupational health, historical state-of-knowledge regarding environmental issues, and ecological and human risk assessment. He has directed the scientific aspects of toxic tort cases. Dr. Paustenbach has also provided expert witness testimony in public meetings and trials concerning the health effects of chemicals in sediments, air, soil, consumer products, groundwater, and the workplace.

Pinkerton, Kent

University of California, Davis

Dr. Kent Pinkerton is a Professor of the Department of Pediatrics in the School of Medicine and Professor of Anatomy, Physiology and Cell Biology in the School of Veterinary Medicine at the University of California, Davis (UCD). He is also the Director of the Center for Health and the Environment, Associate Director of the Western Center for Agricultural Health and Safety at UC Davis, and Associate Director of the San Joaquin Valley Aerosol Health Effects Center. Dr. Pinkerton received his B.S. in Microbiology with a minor in Chemistry from Brigham Young University in 1974; his M.S. in Pathology from Duke University in 1978; and his Ph.D. in Pathology from Duke University in 1982. He was a Research Associate in the Division of Allergy, Critical Care and Respiratory Medicine at Duke University Medical Center in 1982, and he remained at Duke University until 1986 as an Assistant Medical Research Professor in the Department of Pathology. Dr. Pinkerton began teaching at UCD in 1986. Dr. Pinkerton's research has focused on the respiratory system and health. General themes addressed: (1) mechanisms of particulate toxicity, (2) effects of oxidant gases on lung injury and repair, (3) effects of environmental pollutants on lung development and immune responses during perinatal life, (4) mechanisms of tobacco smoke-induced lung inflammation and (5) diet, chemotherapeutic agents and inhibitors of inflammation to reduce tumor risk in an animal model of tobacco-induced lung disease. He has published over 160 articles in peer-reviewed, scientific journals, texts, and encyclopedias on those subjects.Dr. Pinkerton has served on numerous advisory committees and other professional societies. He is a member of the American Association for the Advancement of Science, the American Association of Veterinary Anatomists, the American Thoracic Society, the Microscopy Society of America, and the Society of Toxicology. Between 2000 and 2005, Dr. Pinkerton served as a consultant to the Southern California Particle Center and Supersite (SCPCS), a consortium of scientists for UCLA, USC, Caltech, Rancho Los Amigos, UC Irvine and UC Riverside (and not UC Davis) to study the health effects of airborne particles. From 2002-2003, he was a member on the Admissions Advisory Council for the School of Veterinary Medicine at UC Davis, and from 2002 to 2005, he served as the Chair for the Regents' Scholarship Advisory Committee. In 2004 and 2005, he also became the Program Chair-Elect of the Environmental and Occupational Health Assembly for the American Thoracic Society. Dr. Pinkerton continues to be a member of the Chemical Safety Advisory Committee, Environmental Health & Safety, at UC Davis; serves on the Editorial Board for the Journal of Inhalation Toxicology; member of the Nanoscience and Nanotechnology Steering Committee; and member of Academic Planning – Public Health Initiative Workgroup at the School of Veterinary Medicine, UC Davis. Beginning in 2007, Dr. Pinkerton will also serve as the Assembly Chair of the Environmental and Occupational Health Assembly for the American Thoracic Society.During the past two years, Dr. Pinkerton's major sources of funding have come from the National Institutes of Health (NIH), US Environmental Protection Agency (USEPA), and Philip Morris External Research Group. Specifically, Dr. Pinkerton has examine the mechanisms of particulate toxicity in the lungs of neonatal rats following short and long-term exposure to iron/soot or coal flyash particles in the presence or absence of ozone, funded by the USEPA; studied the effects of exposure to environmental tobacco smoke (ETS) on the maturation and function of the lung airways during fetal and early postnatal development in monkeys, funded by NIH; developed a well-characterized model of tobacco smoke-induced lung inflammation associated with the onset of metaplastic changes in the rodent by identifying molecular as well as cellular biomarkers associated with inflammation that may be responsible for those cellular transformations leading to pulmonary and cardiovascular change, funded by Philip Morris; and tested the hypothesis that inhaled nanomaterials cause respiratory effects in the form of oxidative stress and inflammation, funded by USEPA.

Pooley, Fred

Cardiff University

Dr. Fred Pooley, a research professor at Cardiff University, has credentials in the field of the analysis of dust, including asbestos using the electron microscope (EM). For nearly 40 years, he has been the only microscopist in the world to concentrate his research on the collection and EM analysis the size (length and width) distributions of airborne dust, lung tissue specimens and mineral specimens from all over the world. He served as a court appointed expert to Judge Miles Lord in the Reserve mining case in 1973. He currently analyzes lung tissues related to occupational exposures to asbestos, silica, mica, zeolites, fuller's earth, coal, and man made mineral fiber for pathologists in the UK and throughout the world. During his career, he has analyzed thousands of lung tissue samples from mesothelioma and other dust related disease cases, determining the diameter and length distributions of the fiber populations in throughout lung tissue of such persons, and has extensively published on the subject.

Portier, Christopher

National Institutes of Environmental Health Sciences

Dr. Christopher J. Portier, Ph.D. is director of the Environmental Toxicology Program and Chief of the Laboratory of Computational Biology and Risk Analysis (LCBRA) since 1993 at the National Institute of Environmental Health Sciences. He received his Ph.D. (1981) and M.S. (1979) degrees in Biostatistics from the University of North Carolina, Chapel Hill. His research interests include: toxicology survival analysis, cancer modeling, environmental risk assessment, computer science, toxicokinetics, theoretical biology, statistical analysis, mechanistic modeling, and gene expression. He has authored more than 100 peer-reviewed publications and 50 book chapters, reports and agency publications in statistics, risk assessment and cancer research. He is currently a permanent member (Chair on occasion) of the EPA FIFRA Science Advisory Panel; scientific coordinator for the International Agency for Research on Cancer (IARC) courses in quantitative risk assessment; a frequent guest researcher at the German Cancer Research Center; a doctoral thesis advisor at the University of North Carolina at Chapel Hill and University of Waterloo; an associate editor for Risk Analysis, Environmental Health Perspectives and Statistical Methods in Medical Research; a member of several national and international committees dealing with risk assessment issues; and a member of the WHO Research Coordination Committee on Electric and Magnetic Fields. He is also the recipient of numerous awards including: the first recipient of the James E. Grizzle Distinguished Alumnus Award, The Department of Biostatistics, The University of North Carolina, 1991; Spiegelman Award, most outstanding public health statistician under the age of 40, American Public Health Association, 1995; Distinguished Achievement Award, Section on Statistics and the Environment, American Statistical Association, 1995; Board of Publications, Best Paper Award, Society of Toxicology, 1995; Merit Award, National Institutes of Health, 1998.

Ristich, Anna

DataChem Laboratories

Ms. Anna Marie Ristich is the Manager of the Microscopy Section at DataChem Laboratories Cincinnati Division. She received a BS degree in Geology from the University of Cincinnati in 1982 and her MS in Geology in 1991, also from UC. Ms. Ristich is responsible for the management of activities and personnel in the Microscopy Section, including training and supervision of TEM, PLM and PCM analysts, project development, microscopy manuals and procedures, and asbestos and other mineralogical analyses using TEM, PLM and PCM. She has provided method development, analytical services, and coauthored research projects, including, the US Consumer Product Safety Commission investigations of asbestos content in crayons, chalk and play sand; NIOSH monitoring of airborne asbestos and asbestos in bulk debris and settled dust immediately following the attack on the World Trade Center; NIOSH assessment of asbestos exposures to workers in conjunction with vermiculite processing and use; University of Montana/Montana Tech investigations of asbestos fibers in tree bark from near Libby, MT; and NIOSH, University of North Carolina and Duke University epidemiological studies investigating the relationship of asbestos fiber size to toxicity. Her analytical work has involved distinguishing asbestos, related non-asbestos minerals and mineral intergrowths.

Roggli, Victor

Duke University

Dr. Victor L. Roggli graduated summa cum laude from Rice University in 1973 with a BA degree in biochemistry and environmental engineering. He graduated with honor from Baylor College of Medicine in 1976, and completed residency training in pathology at Baylor Affiliated Hospitals in 1980. Dr. Roggli joined the faculty of Duke University Medical Center in July, 1980 and trained in pulmonary pathology under Dr. Philip C. Pratt. He was appointed Professor of Pathology in 1994, and was the Director of the Electron Microscopy Laboratory at the Durham VA Medical Center from 1992 to 2006. His research interests include pneumocnioses, asbestos-related diseases, and analytical electron microscopy. Dr. Roggli has published more than 150 articles and 27 chapters in textbooks. He has also written four books, including Microprobe Analysis in Medicine, Biomedical Applications of Microprobe Analysis, and Pathology of Asbestos-Associated Diseases, 1st and 2nd Editions. He is a member if the American Thoracic Society, the International Academy of Pathology, the Pulmonary Pathology Society, and the U.S.Canadian Mesothelioma Panel.

Rosenman, Kenneth

Michigan State University

Dr. Kenneth Rosenman, MD, is a Professor of Medicine and Chief of the Division of Occupational and Environmental Medicine at Michigan State University. Dr. Rosenman is Board-Certified in Internal Medicine and Occupational Medicine. He received his medical degree from New York Medical College in 1975. He is a Fellow of the American College of Epidemiology and the American College of Preventive Medicine. Prior to coming to Michigan State University in 1988, Dr. Rosenman was Director of Occupational and Environmental Health at the New Jersey Health Department and a faculty member in the Department of Epidemiology at the University of Massachusetts. He has an active research program in occupational and environmental disease with particular interest in pulmonary disease. He has published approximately 130 articles on occupational and environmental disease. He is currently a member of two advisory committees: the National Research Council's Spacecraft Exposure Guidelines Committee and the Centers for Disease Control and Prevention's Safety and Occupational Health Study Section.

Rubin, Emanuel

Thomas Jefferson University

Dr. Emanuel Rubin has been Chairman of pathology departments at three medical schools for 31 years, the last being at Thomas Jefferson University since 1986. For the last three years he has served as Gonzalo Aponte Distinguished Professor of Pathology at Jefferson. Dr. Rubin has been continuously funded by NIH for more than 40 years, has been the recipient for the last 10 years of a MERIT award and continues to be Principal Investigator on three NIH grants. He has published over 300 papers in the medical literature, has served as editor in chief of the major pathology journal, Laboratory Investigation, for 14 years, and has been a member of the editorial boards of many journals. Dr. Rubin is the recipient of many awards, including honorary degrees from the University of Barcelona and the Italian Republic, the F. K. Mostofi Distinguished Service Award of the U.S.-Canadian Academy of Pathology, the Distinguished Service Award of the Association of Pathology Chairs, the Gold Medal of the International Academy of Pathology and the Golden Cane Award of the American Society for Investigative Pathology. Dr. Rubin has had a longstanding interest in environmental pathology, beginning with his close association in the early 1960s with Dr. Irving Selikoff at the Mt. Sinai Hospital in New York. His interest in asbestos-related disease was sparked by Dr. Selikoff and has continued to the present day. In his textbook, Rubin's Pathology, 5th Ed., Lippincott, Williams and Wilkins, he has personally authored the chapters on environmental pathology and pulmonary pathology, which contain the information on asbestos deemed important for medical students. In addition, he has been called upon to provide consultation to legal and corporate firms with regard to the medical consequences of asbestos exposure. Dr. Rubin continues to participate in educational activities related to asbestos by lecturing on the subject at numerous medical schools.

Schwartz, Ann G.

Wayne State Univ School of Medicine

Dr. Ann Schwartz is Professor of Internal Medicine at Wayne State University School of Medicine. She holds a MPH and PhD from the University of Michigan in environmental health and epidemiology, respectively. The main focus of Dr. Schwartz's work has been studying the genetics underlying lung cancer risk. This work has been directed in two general areas. The first area of study is polymorphisms in candidate genes coding for phase I and II metabolic enzymes (in early onset lung cancer and lung cancer in never smokers) and enzymes involved in estrogen metabolism (in NSCLC in women). Her work in women includes the evaluation of ER-alpha and ER-beta expression in lung tumors. She found that survival after a lung cancer diagnosis varies by ER-beta status of the tumors and sex. She is also looking at hormone replacement therapy as a risk factor and how hormone use and cigarette smoking jointly contribute to lung cancer risk. These studies in unique populations, namely never smokers, those with early onset disease, and women, also provide the opportunity to evaluate risk associated with occupational exposures and inflammation. This is an area she is just beginning to pursue. Already seen is an increased risk of lung cancer among individuals with a previous diagnosis of chronic obstructive pulmonary diseases. We are now doing pilot work to evaluate serum cytokine levels as predictors of lung cancer risk. In addition to taking a candidate gene approach to identify susceptibility genes for lung cancer, her second area of work focuses on gene discovery. She is conducting an admixture mapping study in African Americans with lung cancer. This genome-wide approach, as well as the family linkage study she participates in through her involvement in the Genetic Epidemiology of Lung Cancer Consortium, is focused on the identification of new lung cancer susceptibility genes. In addition to the lung cancer studies described, over the last year Dr. Schwartz has become involved in the preliminary analysis of pulmonary function data from the population exposed to asbestos-amphibole in Libby, Montana. She coordinated the submission of a center application in response to an NIEHS DISCOVER award RFA. In particular, she will head a project of the descriptive epidemiology of the pleural diseases being diagnosed in this population and study biomarkers of inflammation in the natural history of pleural disease among those

exposed. She served as a member of the Scientific Advisory Group for the Center for Asbestos Related Disease in Libby. In addition, the Karmanos Cancer Institute houses an EPA and CDC funded National Center for Vermiculite and Asbestos Related Cancer. A former vermiculite processing plant was located in the metropolitan Detroit area and tens of thousands of homes in the area were insulated with vermiculite. Exposed populations in metropolitan Detroit are being identified for health studies.

Skinner, Catherine

Yale University

Dr. Catherine Skinner holds research/ lecturer positions in the Departments of Geology and Geophysics, Yale University and Orthopaedics and Rehabilitation, Yale School of Medicine, and is presently a Fellow of GSA, MSA, SEG, AAAS, and on the Board of GSA Foundation, and the CT Academy of Arts and Sciences. She has served on many committees for these Societies and presented lectures at meetings worldwide. She is an author of over 70 papers and 4 books, including "Asbestos and Other Fibrous Materials: mineralogy, crystal chemistry and health effects." She has produced an array of recent publications on asbestos. In the past several years she has been called upon to respond to the variety of issues and problems related to known and other fibrous materials. During 2006, she was a reviewer of the NAS/IOM report, "Asbestos: selected Health Effects", now a published document. She has an expertise in minerals and is one author of "Dana's New Mineralogy", the standard reference text in this discipline. Her present activities are related to health issues and she most recently has been the Chair of the Committee producing the Report entitled "Earth Materials and Health" for NRC/NAS.

Southard, Randal

University of California-Davis

Dr. Randal Southard received a B.S. in biology and M.S. in soil science from Utah State University in Logan, and earned his Ph.D. in soil science from North Carolina State University in Raleigh. He became affiliated with UC Davis in 1983. As a soil science professor and soil scientist in the Department of Land, Air and Water Resources, he conducts research on soil genesis, morphology and classification; soil-geomorphic relations; and soil mineralogy. His most recent research focuses on the mineralogy and health effects of agricultural dust and asbestos, and on the effects of soil mineralogy and weathering on potassium fixation and silica chemistry. Dr. Southard teaches courses in environmental science, pedology and field studies of soils and co-authored the textbook Soil Genesis and Classification. He was vice-chair of soils and biogeochemistry in the Department of Land, Air and Water Resources prior to his appointment as Associate Dean in 1999. Dr. Southard has served as Chair of the Western Regional Coordinating Committee on Soil Survey and President of the Western Society of Soil Science, and is active with the National Cooperative Soil Survey. He is currently a member of the Board of Directors of the Soil Science Society of America and is an elected Fellow of that society. He also serves as the campus representative to the Council of Environmental Deans and Directors.

Stayner, Leslie

University of Illinois

Dr. Leslie Stayner is currently a Professor of Epidemiology and Director of the Division of Epidemiology and Biostatistics at the University of Illinois' School of Public Health in Chicago. Previously, he worked at the National Institute for Occupational Safety and Health for nearly 25 years and in his last position was the Chief of their Risk Evaluation Branch. Dr. Stayner is well recognized nationally and internationally in the area of Occupational and Environmental Epidemiology. He has approximately 100 scientific papers and book chapters. His research interests are primarily on occupational and environmental cancer, and epidemiologic methods particularly with regard to quantitative risk assessment. He has been involved in conducting research on cancer and exposure to asbestos, 1,3-butadiene, formaldehyde, diesel exhaust, hexavalent chromium, cadmium, silica and ethylene oxide. He has served or is serving as an advisor to numerous agencies including ATSDR, EPA, NRC, OSHA, MSHA and the WHO. He has also worked as a Visiting Scientist with the International Agency for Research on Cancer (IARC) in Lyon France and has participated in numerous of their monograph meetings.

Suzuki, Yasunosuke

Mount Sinai School of Medicine

Dr. Yasunosuke Suzuki is currently Emeritus Professor at the Mount Sinai School of Medicine. He was educated at Keio University, Tokyo, Japan and graduated with an M.D. degree from the School of Medicine of the Keio University in 1953. After a one-year Internship at the Setagaya National Hospital, Tokyo, Japan, he obtained a medical license from the Japanese Government in 1954. He joined the Department of Pathology at Keio University School of Medicine as an Assistant of Pathology in 1954 where he performed original research using electron microscopy to identify and characterize structural elements of the renal glomerulus. In 1959, Dr. Suzuki received the degree of Doctor of Medical Sciences in the field of pathology. From 1960-1962, Suzuki investigated renal pathology using light and electron micrscopy at the New York University School of Medicine and Mount Sinai Hospital as an International Post Doctoral Research Fellow of National Institute of Health (NIH), USA. He returned to Keio university in September of 1962. In 1966, Dr. Suzuki returned to Mount Sinai as a young staff (Research Associate followed by Assistant Professor and Associate Professor of Pathology and Community Medicine) and, in addition to renal pathology, began to investigate pathology of asbestos related diseases with Dr. Irving J. Selikoff. His research on asbestos related diseases included pulmonary asbestosis, the development and formation of asbestos bodies and electron microscopy of human malignant mesothelioma. In 1973, Dr. Suzuki returned to Japan to serve as Chairman and Professor of Anatomy at Fujita-Gakuen University School of Medicine. However, in response to Dr. Selikoff's offer, he returned to Mount Sinai in 1975 as Research Professor of Community Medicine and also as Research Associated Professor of Pathology. From 1975 to 2006, he devoted his time to investigating the pathology of asbestos related diseases. One of his significant contributions was to support Selikoff's epidemiological study on asbestos insulation workers. He reviewed pathologic materials (autopsy and biopsy samples taken from approximately 5,000 cases of insulation workers to confirm the diagnosis of asbestos related diseases. He was promoted to Professor of Community and Preventive Medicine in 1991 and also Professor of Pathology in 1989 at the Mount Sinai School of Medicine. Up to the present, Dr. Suzuki has published a total of 171 scientific papers (of which the majority were original papers and published in peer reviewed journals; over 100 papers were related to asbestos related diseses and approximately 40 papers were for the kidney diseases). Dr. Suzuki received the Irving J. Selikoff Lifetime Achievement Award in April 2006, the Ramazzini Award in 1993, a Guest Professor title at Tokai University School of Medicine, Japan 1993-1996 and 1999-2000, and a title of Visiting Professor of Pathology at Keio University School of Medicine, Japan. He served as a consultant for the Food and Drug Administration, USA from 1988 to 1989 and also as a member of the malignant mesothelioma pathology panel, Cancer and Leukemia B Group

supported by National Cancer Institute from 1985 to 1997. Dr. Suzuki has been a member of various academic societies, including Fellow of Collegium Ramazzini, the American Association of Pathologists, the American College of Toxicology, the Federation of American Society for Experimental Biology, the American Association for Cancer Research, the American Medical Association, the Harvey Society, and the New York Academy of Science.

Thorne, Peter

Univ of Iowa

Dr. Peter S. Thorne is Professor of Toxicology and Environmental Health in the University of Iowa, College of Public Health. He also holds a secondary appointment as Professor of Environmental Engineering. He received his MSc in biomedical engineering and PhD in toxicology from the University of Wisconsin-Madison in 1978 and 1980, respectively, and did his post-doctoral training in immunotoxicology at the University of Pittsburgh from 1984-1986. He is Director of the Environmental Health Sciences Research Center, Director of the University of Iowa, Pulmonary Toxicology Facility and leader of a productive research laboratory engaged in studies of environmental risk factors for asthma, inflammatory lung diseases, endotoxin- and glucan-induced immunomodulation, and novel methodology for exposure assessment. His research is presented in 150 peer-reviewed publications and book chapters. He teaches graduate level courses on environmental health, human toxicology, and research methods in biological agents. He has served on a variety of editorial and review boards for scientific journals, government agencies, and academia and on the National Advisory Environmental Health Sciences Council for the U.S. National Institutes of Health.

Turim, Jay

Exponent, Inc.

Dr. Jay Turim is Sr. Managing Scientist at Exponent, a scientific and engineering consultant organization noted for its expertise in assessing risk to humans under a wide variety of circumstances. Dr. Turim earned his doctorate from New York University in Applied Mathematics; he also has an engineering baccalaureate from Rensselaer Polytechnic Institute, and a master’s degree in Mathematics from Adelphi University. Dr. Turim’s area of expertise is the assessment of risk to humans from environmental, occupational, and consumer product exposures to chemicals and other substances. Starting his career at the U.S. Environmental Protection Agency, Dr. Turim was at the forefront of developing techniques to assess risk from pesticides and Superfund-related exposures. For the past 10 years, Dr. Turim has specialized in the evaluation of risk from fibrous substances, including asbestos and man-made vitreous fibers. In November 2005 Dr. Turim was an invited specialist in the WHO/IARC workshop on mechanisms of fiber carcinogenesis and assessment of chrysotile asbestos substitutes. Dr. Turim is a member of the Society of Risk Analysis and is a reviewer for that journal.

Van Orden, Drew

RJ Lee Group, Inc.

Mr. Drew Van Orden is a senior scientist at RJLG. He has more than 20 years of experience developing asbestos analytical methods; analyzing asbestos-containing materials; and the design, conduct and evaluation of studies to measure potential asbestos release from asbestos-containing materials. Mr. Van Orden has been qualified as an expert in State and Federal courts in numerous asbestos cases. He has testified about the development and use of scientific knowledge and techniques regarding the collection, analysis and measurement of airborne asbestos levels and governmental and industrial standards, past and present, for airborne asbestos and the history and current methodologies for electron microscopy. While at RJLG, Mr. Van Orden has directed quality assurance activities including registration and certification in national and state laboratory certification programs. He has participated in a number of large, national evaluations of ambient asbestos concentration studies and was a contributor to the asbestos review conducted by the Health Effects Institute-Asbestos Research (HEI-AR). He directed a study of earthquake effects on airborne asbestos concentrations, participated in EPA investigations into airborne asbestos concentrations in public buildings, and has conducted statistical analyses of numerous voluminous and complex data sets. Mr. Van Orden was the lead author of an American Society for Testing and Materials (ASTM) standard for the collection, preparation, and analysis of surface dusts for asbestos and was the principal author of a method to analyze airborne particles at mines and quarries. He is a member of the Society of Mining Engineers, the National Society of Professional Engineers, the Pennsylvania Society of Professional Engineers, American Society for Testing and Materials, American Society for Quality and the American Industrial Hygiene Association. He also is a registered Professional Engineer in the Commonwealth of Pennsylvania.

Veblen, David

Johns Hopkins Univ

Dr. David Veblen is Professor of Earth and Planetary Sciences at Johns Hopkins University, specializing in mineralogy and crystallography. He holds a joint appointment in the Dept of Materials Science and Engineering. He studied at Harvard University, where he was awarded the Bachelors (1969), Masters (1974), and Ph.D. (1976) degrees all in Geological Sciences. Instruction includes courses in geology, mineralogy, crystallography, crystal chemistry and transmission electron microscopy. Approximately 20 students have received their Ph.D. degrees under his supervision at Johns Hopkins. Dr. Veblen was awarded the Mineralogical Society of America award for his research in the crystal chemistry of chain and sheet silicates; he served as President of the MSA; and he was the Tage Erlander Guest Professor on Sweden. His research program has been funded continuously for 28 years, primarily by the US Dept of Energy and the National Science Foundation. Although his Ph.D. research was in the area of single-crystal X-ray diffraction applied to triple-chain silicates, Dr. Veblen's primary research since then have centered on transmission electron microscopy, including high-resolution imaging, electron diffraction, analytical electron microscopy and energy filtered chemical imaging. He has directed Johns Hopkins' inorganic transmission electron microscopy for 25 years, working with numerous faculty and students from other departments and other institutions. Although he has worked on crystal-chemical or geochemical problems involving virtually every major group of rock-forming minerals, his most intense interests are still the chain sheet silicates, which include all recognized forms of asbestos.

Webber, James

New York State Department of Health

Dr. James Webber received a BS in Biology from Wheaton College, an MS in Zoology from Michigan State University, and a PhD in Environmental Health & Toxicology from the State University of New York (SUNY) at Albany. He started the Asbestos Laboratory within the New York State Department of Health (NYSDOH) in 1979 and has developed many methods for analysis of asbestos in the environment during the past quarter century. His recent multi-disciplinary research provided the first reconstruction of airborne asbestos concentrations from the mid 1800s to the present. He has published more than a dozen peer-reviewed papers and several invited chapters on asbestos analysis. In addition to his duties as a Research Scientist with NYSDOH, Dr. Webber serves as an Assistant Professor in SUNY-Albany's School of Public Health. Recognition of Dr. Webber's expertise in asbestos analysis is evidenced by his appointment to and participation on national and international panels and committees: Lead Peer Reviewer – Environmental Protection Agency's World Trade Center Dust Screening Study (2005)Panel Member – Development of Environmental Protection Agency's Vermiculite Attic Insulation Method (2003-2004)Technical Expert (Airborne and Bulk Asbestos) - National Institute of Science and Technology's National Voluntary Laboratory Accreditation Program (1988 - Present) Secretary - United States Technical Advisory Group to the International Standards Organization Technical Committee (TC) 146 Air Quality (2002 – Present) United States Delegate – International Standards Organization TC 146/SC 3/WG 1 (Ambient Air) Determination of Asbestos Fibre Content (2002 – Present) United States Delegate – International Standards Organization TC 146/SC 6/WG 4 (Indoor Air) Asbestos - Mineral Fibres (2002 – Present) Secretary - American Society for Testing and Materials Committee D22.07 Asbestos Sampling and Analysis (2000 – Present) Secretary - American Society for Testing and Materials Committee D22 Air Quality.

Weill, David

Stanford University

Dr. David Weill is Medical Director of the Lung and Heart – Lung Transplant Program at Stanford University Medical Center. He is also an Associate Professor in the Division of Pulmonary and Critical Care Medicine at Stanford and is Board Certified in Pulmonary Medicine and a National Institute for Occupational Safety and Health (NIOSH) – certified B Reader, which is a demonstration of proficiency in the interpretation of pneumoconiosis – related chest radiographs. Dr. Weill attended Tulane Medical School and completed his Internal Medicine residency at the University of Texas-Southwestern. He completed a fellowship in Pulmonary and Critical Care Medicine at the University of Colorado Health Sciences Center. He is currently an Associate Editor of the Journal of Heart and Lung Transplantation and an Editorial Consultant on Asbestosis for the Physicians' Information and Education Resource for the American College of Physicians. In addition to his practice specializing in end-stage lung diseases, he has been a visiting professor at the National Institute for Occupational Medicine and Poison Control in Beijing, China. He also testified before the United States Senate Judiciary Committee and the Texas State Legislature regarding legislation addressing the handling of asbestos and silica claims. Dr. Weill has written book chapters regarding the clinical aspects of asbestos related lung disease and the controversial areas in asbestos medicine. He has published recently commentary regarding the 2004 American Thoracic Society Statement on the diagnosis of non-malignant asbestos disease.

Wheeler, John

ATSDR

Dr. John S. Wheeler currently serves as Senior Toxicologist in the Exposure Investigations and Site Assessment Branch, National Center for Health/Agency for Toxic Substances and Disease Registry (ATSDR). His duties include critical toxicological review of health consultations and public health assessments. He has been extensively involved in PFOA issues, lead investigations, PCB uptake in plants, and he currently serves as the in-house expert on issues related to asbestos exposure and toxicity. Previously he was with the Division of Toxicology, ATSDR where he coordinated the EPA/ATSDR Test Rule identifying testing needs for 24 substances. In addition he was the Toxicological Profile manager for nickel, a member of the Minimal Risk Level workgroup, and headed up the tremolite consultation published in the Asbestos Toxicological Profile in response to the Libby, MT asbestos problem. Dr. Wheeler received his B.S. in biochemistry from Oklahoma State University, his M.S. degree in toxicology from the University of Kentucky, and his Ph.D. in toxicology from the University of Kentucky. The subject of his dissertation was ultraviolet light and how it interacts with chemical mutagens to affect DNA repair mechanisms. Dr. Wheeler furthered his toxicology studies with a 3-year post doctoral position at the National Center for Toxicological Research investigating the mechanisms of cancer induction by 4-amino biphenyl. Dr. Wheeler has been an instructor at the University of Kentucky and Emory University. Dr. Wheeler became a Diplomat of the American Board of Toxicology in 1993. He has served as a toxicologist at ATSDR for the last 16 years. Dr. Wheeler became involved with asbestos in 1999 during ATSDR's response to the asbestos contamination in Libby, MT. Since then he has investigated asbestos at numerous sites including the World Trade Center, demolition sites, sites that received Libby ore, and most recently naturally occurring asbestos sites. He currently sits on several interagency asbestos panels and workgroups.

Wilson, Richard

Harvard University

Dr. Richard Wilson has been the Mallinckrodt Research Professor of Physics at Harvard University since 1999. He earned his has three university degrees BA, MA and PhD, all in physics, from Christ College, Oxford University, Oxford, England. In 2001 he was awarded an Honorary Doctorate from the International Sakharov Environmental University. Although he has over 865 scholarly publications in many areas of science, his pioneering research is in using risk analysis to evaluate the magnitude of health effects from agents in the environment. Dr. Wilson's research in nuclear physics led him to an interest in the health effects associated with exposure to radiation. He has applied the risk analysis lessons learned to many other agents in the environment including cigarette smoke, arsenic and fibrous particles. His book on Risk Benefit Analysis is in its second edition. For many years he worked to develop risk assessments to understand the magnitude of cancer risk associated with small cumulative exposures to fibrous particles, both naturally occurring and synthetic, leading to scientific publications and organizing two international symposiums on the heath effects of fibrous minerals. He served on the scientific advisory committees for fiber symposia and has a long and distinguished record of local, regional, national and international service on advisory boards and professional societies.

Wylie, Ann

University of Maryland

Dr. Ann Wylie is Professor of Geology and Assistant President and Chief of Staff of the University of Maryland. She graduated from Wellesley College, Massachusetts, with a BA degree in geology and from Columbia University, New York, with a PhD in economic geology and mineralogy. She has published widely in mineralogy, including the mineralogy of amphibole, asbestos, talc, and other minerals used in commerce. Her research includes the use of optical mineralogy, x-ray diffraction, and electron microscopy in identification, measurement, and characterization minerals and mineral particulates associated with human disease. She served on the US Department of Education Task Force on Asbestos in Schools, as an expert panel member for EPA's Superfund Bulk Asbestos Method, and most recently on the IARC Monograph Work Group on talc, carbon black and titanium dioxide. She is a fellow of the Geological Society of America and a member of the Mineralogical Society of Canada, the American Geophysical Union, the AAAS, and the Geological Society of Washington.