

**Invitation for Comments on the “Short List” Candidates for the
Asbestos Expert Review Panel
of the
EPA Science Advisory Board (SAB)
January 18, 2008**

The EPA Science Advisory Board (SAB) Staff Office announced in a Federal Register Notice (71 FR 48926-48927) that the SAB Staff Office was forming an SAB panel to provide technical advice on the Agency’s proposed methodology to estimate potential cancer risk from inhalation exposure to asbestos mineral fibers. On April 19, 2007, the SAB Staff Office posted a short list of 65 candidates for public comment. On October 26, 2007, the SAB Staff Office published a Federal Register Notice (72 FR 60844-60845) requesting additional expertise for the formation of Asbestos Expert Panel. The additional expertise sought included biostatistics, statistical, modeling, epidemiology, meta-analysis, Bayesian analysis and toxicology of inhaled particles. Background on this advisory activity and panel nomination process appears in the above referenced Federal Register Notices, available at the SAB website at (<http://www.epa.gov/sab/>).

The SAB Staff Office has reviewed the nominations for the Asbestos Expert Committee, and has identified 13 additional “Short List” candidates based on the expertise needed for this panel and interest of the nominees. Brief biographical sketches of the candidates on the "Short List" are listed below. We invite comments from the public on these candidates. We welcome information, analysis or documentation that the SAB Staff Office should consider in evaluating these candidates.

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. This includes a review of the member’s confidential financial disclosure form (EPA Form 3110-48) and an evaluation of a lack of an appearance of impartiality. For the SAB Staff Office, a balanced committee or panel is characterized by inclusion of candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the general charge. Specific criteria to be used in evaluating an individual panel member include: (a) scientific and/or

technical expertise, knowledge, and experience; (b) availability and willingness to serve; (c) absence of financial conflict of interests; (d) absence of an appearance of a lack of impartiality; (e) skills working in committees and advisory panels; and for the Panel as a whole, (f) diversity of, and balance among scientific expertise and view points. The SAB Staff Office Deputy Director will make the final decision about who serves on the panel, based on all relevant information.

Please provide any comments with respect to the additional shortlist candidates by email no later than Feb 7, 2008 to the attention of Ms. Vivian Turner, Designated Federal Officer, (turner.vivian@epa.gov).

Additional “Short-List” Candidates for the SAB Asbestos Expert Committee

Beaumont, James Justin (Jay)

California Environmental Protection Agency

Dr. James Beaumont is an epidemiologist at the California Environmental Protection Agency (Cal/EPA) in Sacramento, California, and a professor emeritus at the University of California, Davis, (UCD) in Davis, California. He has a B.S. in Environmental Health, an M.S.P.H. in Industrial Hygiene, and a Ph.D. in Epidemiology, with all degrees being from the University of Washington. Dr. Beaumont's professional career began at the National Institute for Occupational Health and Safety (NIOSH) in Cincinnati where he performed and supervised occupational cancer epidemiology studies for six years. He then joined the faculty at the University of California, Davis, School of Medicine, Department of Epidemiology, for 16 years, during which time he became a tenured professor. After retiring from UCD (but remaining a member of the academic senate), Dr. Beaumont joined the Cal/EPA where he collaborates with toxicologists, physicians, and biostatisticians in risk identification and quantification for potentially carcinogenic exposures. His cancer risk assessment collaborations At Cal/EPA have included the topics of hexavalent chromium in drinking water, second-hand smoke, chemicals considered for state-required "Proposition 65" warning labels for potential carcinogens. His recent publications include an analysis of cancer mortality in a Chinese population exposed to Cr+6 in drinking water. Dr. Beaumont's current projects include a meta-analysis of non-respiratory cancer risks in occupational studies of Cr+6 and cancer and a review of epidemiologic evidence regarding the carcinogenicity of marijuana smoke.

Belcher, Anthony

Wes-Tech Environmental

Anthony Belcher is currently with Wes-Tech Environmental, and is a Certified Hazardous Materials Specialist, and an Industrial Hygienist. He is also a Licensed Certified Asbestos Consultant and a California Certified Asbestos Training Provider. Mr. Belcher has fifteen years experience in Environmental Hygiene CEQA/NEPA, air quality control, soil and water compliance and resource assessment and has extensive knowledge of CAL-OSHA, CAL-EPA, NIOSH, and NESHAP regulations. Mr. Belcher has extensive experience in reviewing and confirming sampling and analysis plans, site characterization reports, health and safety plans, and providing direct oversight to all field works. He coordinates and supervises on-site remediation, engineering and removal of hazardous wastes and ensures compliance with specifications and regulatory requirements. He was previously appointed to serve on the Sacramento County Board of Supervisors to the Building Standards Board (1993-1994) and the Sacramento County Board of Supervisors County Justice System Advisory Group (1989-1991). Mr. Belcher received a A.S. from Sacramento City College in 1987.

Bernstein, David

Independent Consultant

Dr. David Bernstein is a consultant in toxicology, specializing in inhalation toxicology residing in Geneva, Switzerland. Prior to this, he was the Managing Director of the Research and Consulting Company Ltd. (RCC), Geneva, Switzerland. RCC specialized in performing state of the art inhalation toxicology and lung pharmacology studies for industrial and regulatory (GLP) requirements. At RCC he was responsible for the design of the current protocols for evaluating the biopersistence and chronic inhalation toxicology of mineral fibers and performed numerous fiber biopersistence and chronic fiber inhalation carcinogenicity studies. Before that he was Manager of the Toxicology and Pathology Group in the Center for Toxicology and Biosciences of the Geneva Division of the Battelle Memorial Institute. His areas of expertise are inhalation toxicology, toxicology study design, monitoring and interpretation, risk assessment, and mineral fibre and chemical toxicity. Dr. Bernstein has a B.A. in Physics from Yeshiva University, New York, a Masters in Physics from City University of New York, Queens College, and a Ph.D. in Environmental Medicine/Toxicology from the Institute of Environmental Medicine, New York University Medical Center, New York. Under mandate to the European Commission, he coordinated a scientific working group that evaluated the

relationship between fiber biopersistence and chronic toxicity which led to the establishment of the EC's Synthetic Mineral Fiber Directive. Recent publications in the field of asbestos and respirable fibres include "The health effects of chrysotile: current perspective based upon recent data" in Regulatory Toxicology and Pharmacology; "Synthetic Vitreous Fibers: A review toxicology, epidemiology and regulations" in Critical Reviews in Toxicology; "The toxicological response of Brazilian chrysotile asbestos: A multidose sub-chronic 90-day inhalation toxicology study with 92 day recovery to assess cellular and pathological response" in Inhalation Toxicology; and "The biopersistence of Canadian chrysotile asbestos following inhalation" in Inhalation Toxicology. Dr. Bernstein has more than 65 scientific publications in addition to authoring chapters on fiber toxicology in toxicology textbooks and numerous presentations and reports. He is a member of several professional associations, including the Society of Toxicology, American Conference of Governmental Industrial Hygienists, the British Occupational Hygiene Society, the British Association of Inhalation Toxicologists and the Association Suisse des Hygiénistes du Travail. Dr. Bernstein is currently a member of the editorial board of the journal Inhalation Toxicology and is an editorial reviewer for the journals Toxicology and Applied Pharmacology; BMC Cancer; Toxicology Letters; Critical Reviews in Toxicology; Toxicological Sciences; Journal of Toxicology and Environmental Health; and Regulatory Toxicology & Pharmacology.

Cox, Louis Anthony (Tony)

Cox Associates

Dr. Louis Anthony Cox is President of Cox Associates, a Denver-based applied research company specializing in applied health risk analysis, statistical and probabilistic risk assessment and data mining, and operations research modeling. Cox Associates' mathematicians and scientists have developed and applied computer simulation and biomathematical models, statistical and epidemiological risk analyses, causal data mining techniques and operations research and artificial intelligence risk and decision models to improve health, business, and engineering risk analysis and decision-making for public and private sector clients. Dr. Cox holds a Ph.D in Risk Analysis (1986) and an S.M. in Operations Research (1985), both from M.I.T.'s Department of Electrical Engineering and Computer Science. He has an AB from Harvard University (economics) and is a graduate of the Stanford Executive Program (1993). He is Honorary Full Professor of Mathematics at the University of Colorado at Denver, where he lectures on biomathematics and health risk modeling, computational statistics and machine learning. He is also Clinical Professor of Preventive Medicine and Biometrics at the University of Colorado Health Sciences Center, where he teaches and guides graduate research on uncertainty analysis and causation in epidemiological studies.

Finkelstein, Murray

Ontario Ministry of Labour

Dr Finkelstein is one of Canada's foremost experts on the epidemiology of asbestos disease. He has been employed as a Medical Consultant at the Ontario Ministry of Labour for over 29 years, and has Faculty appointments as Associate Professor in the Program in Occupational Health and Environmental Medicine at McMaster University and as Assistant Professor in the Department of Public Health Sciences at the University of Toronto. He has designed, conducted, and published numerous studies on the health effects of occupational exposure to asbestos including: studies of mortality among workers receiving workers' compensation for asbestosis; radiographic abnormalities, lung function abnormalities, and mortality among asbestos-cement workers; and, studies of asbestos insulators, friction materials manufacturers, asbestos insulation manufacturers, electrical conduit manufacturers, refinery workers, and construction workers. He was invited to appear as a witness before the Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario, and his research and opinions were widely cited in the Royal Commission Report. He was also invited by Professor Irving Selikoff, of the Mt Sinai School of Medicine in New York, to participate in the Collegium Ramazzini's deliberations on radiographic asbestosis and to participate in the New York Academy of Sciences conference on Asbestos Exposure: The Third Wave. Dr Finkelstein is a tutor in evidence-based medicine for the College of Family Physicians of Canada. He has prepared systematic reviews for the Ontario Workplace Safety and Insurance Board and he is currently leading a systematic review of the relations between asbestos exposure and lung cancer risk for WorkSafeBC, the British Columbia workers' compensation board.

Gelman, Andrew

Columbia University

Dr. Andrew Gelman is Professor in the Departments of Statistics and Political Science at Columbia University, Director of the Applied Statistic Center, and also the founding director of the Quantitative Methods in the Social Sciences program. He received his PhD in statistics from Harvard University. He has been the principal investigator on several research grants regarding bayesian analysis and multilevel modeling. Additionally, he has written several comprehensive books on data analysis which demonstrate the importance of bayesian statistical thinking to the design model building, inference and model checking involved in scientific investigation and he has hundreds of articles in these areas to his credit. Dr. Gelman has won many awards in the area of bayesian analysis and statistical application. Dr. Gelman has served on many panels including the National Academy of Sciences Panel on Improving Data to Analyze Food and Nutrition Policies and the Columbia University Superfund Basic Research Program, Health Effects and Geochemistry of Arsenic and Lead.

Liroy, Paul J.

UMDNJ - Robert Wood Johnson Medical School

Dr. Liroy, Professor of Environmental and Community Medicine, UMDNJ-RWJMS, is the Director of the Exposure Measurement and Assessment Division, and he and Dr. P. Georgopoulos are Directors of the Center for Exposure and Risk Modeling. His expertise includes human exposure to environmental and occupational pollution, multi-media exposure issues for metals and pesticides, research on air pollution theory of exposure to dose relationships, and participation in study exposure and/or effects of pollution on human health in urban and non-urban areas, and controlled environments. He has over 180 peer reviewed papers, and has been and is a member of numerous editorial boards. Dr. Liroy currently serves on the U.S. EPA Science Advisory Board's Homeland Security Advisory Committee and has served on the National Research Council Committee on Particles, the Collegium Ramazzini, and International Joint Commission Air Quality Board for U. S. and Canada. He is President of the International Society of Exposure Analysis and was its 1998 recipient of the Wesolowski Award for Human Exposure Research.

Muhle, Hartwig

Fraunhofer Institute für Toxikologie und Aerosolforschung

Dr. Hartwig Muhle is Professor of Toxicology at the Fraunhofer Institute of Toxicology and Aerosol Research in Hanover, Germany. His research program focuses primarily on mechanisms of lung injury from air pollution, heavy metals, natural and man-made mineral fibers. He has served on many expert panels and working groups including the 2001 IARC Working Group on the Evaluation of Carcinogenic Risks to Humans (Man-Made Fibres); the 2005 WHO Workshop on Mechanisms of Fibre Carcinogenesis and Assessment of Chrysotile Asbestos Substitutes; and the 1996 "International Advisory Committee" of the sixth international meeting on the Toxicology of Natural and Man-Made Mineral Fibrous and Non-Fibrous Particles. He has written well over 80 publications in the field of inhalation toxicology.

Neuberger, John

University of Kansas

Dr. Neuberger is a Medical School Professor and epidemiologist with a principal interest in environmental causes of cancer. Currently he teaches a core MPH course in Environmental Health and an advanced MPH course on Cancer Epidemiology. His background includes a Bachelor of Mechanical Engineering Degree from Cornell University, a Masters Degree in Business Administration from Columbia University, and Masters and Doctoral Degrees in

Public Health from Johns Hopkins University. Dr. Neuberger's research interests include residential radon exposure and lung cancer and the cause(s) of brain cancer. Previously he worked with Dr. Irving Selikoff of the Mount Sinai School of Medicine on his studies of asbestos exposure in insulation workers and the subsequent risk for various cancers. Although he is no longer directly involved with the Mount Sinai group, he has maintained an active interest in the cancer causing aspects of asbestos exposure. Dr. Neuberger is a member of the Brain Tumor Epidemiology Consortium and is the Director of Continuing Education for the Epidemiology Section of the American Public Health Association (APHA). He is Vice-Chair of APHA's Education Board and serves on the U.S. Environmental Protection Agency's Total Coliform Rule/Distribution System Advisory Committee. At the local level he is very active in providing city councils with information pertaining to the health effects of second hand smoke exposure. He has received research funding from the National Multiple Sclerosis Society.

Öberdorster, Günter

University of Rochester

Dr. Günter Oberdörster is Professor in the Department of Environmental Medicine and Head of the Division of Respiratory Biology & Toxicology at the University of Rochester and Director of the University of Rochester Ultrafine Particle Center. He is known for his research on the effects and underlying mechanisms of lung injury induced by inhaled non-fibrous and fibrous particles, including extrapolation modeling and risk assessment. His research on with ultrafine particles influenced the field of inhalation toxicology, raising awareness of their unique toxicological potential. He has extensive expertise in the toxicology and health effects of air pollutants, their risk assessment and toxicokinetics. Dr. Oberdörster earned his D.V.M. and Ph.D. (Pharmacology) from the University of Giessen in Germany. He has served on national and international committees, among others: NIEHS study sections, EPA's Science Advisory Board committees, Board of Scientific Counselors of the National Toxicology Program, NRC's Committee on Toxicology, TLV Committee of the American Conference of Governmental Industrial Hygienists, several working groups of the Intl. Agency for Research on Cancer (IARC), WHO consultancies, IUPAC Commission on Toxicology, ad hoc Expert Group on Chemicals Bureau of the European Commission, and advisory panel of the German Research Association. He has served on EPA's Clean Air Scientific Advisory Committee (CASAC) and on NRC's Committee on Research Priorities for Airborne Particulate Matter. Sources of his present grant support include EPA, NIEHS and International Carbon Black Association.

Peto, Julian

London School of Hygiene and Tropical Medicine

Professor Julian Peto holds the Cancer Research UK Chair of Epidemiology at the London School of Hygiene & Tropical Medicine and the Institute of Cancer Research. From 1969 to 1974, he worked as a statistician at Edinburgh University, the Institute of Psychiatry and the Medical Research Council's T.B. Unit. In 1974, he joined the Imperial Cancer Research Fund Cancer Epidemiology and Clinical Trials Unit in Oxford, where he worked as a research scientist with Sir Richard Doll. In 1983, he was appointed to the Cancer Research UK (formerly CRC) Chair of Epidemiology at the Institute of Cancer Research. Since 1998, the Chair has been held jointly between the Institute of Cancer Research and the London School of Hygiene & Tropical Medicine, and he now spends most of his time at LSHTM. Professor Peto and his colleagues carry out epidemiological studies and genetic research on various cancers. His work has included studies on asbestos and other occupational carcinogens, childhood cancers, oral contraceptives and breast cancer, the natural history of human papillomavirus (HPV) infection and cervical cancer, particularly in relation to screening, and the genetics of breast cancer. He has also been involved in many randomized studies of cancer treatment.

Rice, Carol

University of Cincinnati

Dr. Carol Rice is Professor of Environmental Health and Director of Environmental & Occupational Hygiene academic training program at the University of Cincinnati. She received her PhD in industrial hygiene from the University of North Carolina School of Public Health, Chapel Hill. Dr. Rice has been involved in the assessment of exposure to asbestos since first entering industrial hygiene practice in 1975 when she participated in interviews of shipyard and construction workers during studies at the Mount Sinai School of Medicine. While working for the Vermont Health Department of Occupational Safety and Health program (a state OSHA plan), she was key in identifying a school where spray-on asbestos was separating from the structural steel and dropping into student areas. Working with the Vermont Commissioner of Health, a state-wide survey of all schools was planned in 1978 and the work was completed by technicians trained by Dr. Rice; remediation plans were developed for identified asbestos sources. More recently, working on a data set developed by National Cancer Institute researchers, Dr. Rice has categorized fiber type and length of asbestos used in a wide range of industries and described the frequency, intensity and probability of these exposures. Non-work related potential exposures to asbestos have been described. Current, ongoing analyses of this data set include the relation of these metrics to mesothelioma risk. Dr. Rice has participated in the NIOSH panel review of proposals to fund a virtual mesothelioma registry and is a member of the University of Minnesota Scientific Advisory Committee to provide expert review of the occupational health study of Taconite workers in Minnesota. Dr. Rice is a member/officer of many industrial hygiene associations; has won many awards and honors for her work on occupational epidemiology; has been the principal investigator on many chemical exposure grants; and authored a vast number of articles on fiber exposures.

Ruppert, David

Cornell University

Dr. David Ruppert is the Andrew Schultz, Jr. Professor of Engineering at Cornell University. He received his B.A. in mathematics from Cornell in 1970 and his M.A in mathematics from the University of Vermont in 1973. He earned his Ph.D. in statistics from Michigan State in 1977 after which he served on the Faculty of the University of North Carolina. Professor Ruppert joined the School of Operations Research and Industrial Engineering in 1987. Dr. Ruppert's research has concentrated on several areas of regression analysis, especially nonparametric estimation, data transformation, weighting, and errors in variables. He currently pursues research on (1) the calibration of models used by environmental engineers, (2) fitting statistical models when variables have been measured with error, (3) the use of splines in statistical modeling, and (4) Bayesian computations. He has worked on a variety of applications including estimation of the term structure of interest rates, estimation of the concentrations of pathogens in drinking water supplies, biostatistics, and the meta-modeling of cluster tools used in semiconductor manufacturing. Ruppert also works on the spline regression, dimension-reduction, index-index models, generalized additive models, random-effects models. Recently he has started to work on high-dimensional models in genomics. Professor Ruppert also does a variety of statistical research, including regression, splines, MCMC, modeling of term structure, measurement error models, and semi parametric modeling.