

Appendix A

Speaker Biographies

Surgeon General's Workshop on Healthy Indoor Environment

Clive Brown, M.B.B.S., M.Sc., M.P.H.

Clive Brown, M.B.B.S, M.Sc., M.P.H., is a Medical Epidemiologist with the Field Section of the Air Pollution and Respiratory Health Branch (APRHB), National Center for Environmental Health at the Centers for Disease Control and Prevention (CDC). He completed his medical training in Jamaica in 1987 where he served as the Medical Officer of Health for the Parish of St. James. He joined the CDC's Epidemic Intelligence Service program in 1993 and completed his preventive medicine residency at CDC in 1996, where he worked on getting asthma onto the CDC agenda. He has an M.P.H. degree in Epidemiology from Columbia University and a M.Sc. degree in Health Systems Management from the London School of Hygiene and Tropical Medicine.

Dr. Brown is CDC's main contact for issues related to non-occupational indoor air quality and for the investigation of pulmonary hemorrhage in infants. He also does research on asthma. He has served as a consultant to the Pan American Health Organization where he was assigned to the Caribbean Epidemiology Center. Dr. Brown is also an Associate Professor for Epidemiology at the University of Technology in Jamaica and Clark Atlanta University in Atlanta, Georgia.

VADM Richard H. Carmona, M.D., M.P.H., F.A.C.S.

Vice Admiral (VADM) Richard H. Carmona, M.D., M.P.H. F.A.C.S., was sworn in as the 17th Surgeon General of the United States Public Health Service on August 5, 2002. Prior to being named Surgeon General, he was the chairman of the State of Arizona Southern Regional Emergency Medical System, a professor of surgery, public health and family and community medicine at the University of Arizona, and the Pima County Sheriff's Department surgeon and deputy sheriff.

VADM Carmona has worked in various positions in the medical field including paramedic, registered nurse and physician. VADM Carmona completed a surgical residency at the University of California, San Francisco, and a National Institutes of Health-sponsored fellowship in trauma, burns and critical care. He is a Fellow of the American College of Surgeons, and is also certified in correctional health care and in quality assurance.

VADM Carmona has held progressive positions of responsibility as chief medical officer, hospital chief executive officer, public health officer, and finally chief executive officer

of the Pima county health care system. He has also served as a medical director of police and fire departments and is a fully-qualified peace officer with expertise in special operations and emergency preparedness, including weapons of mass destruction.

VADM Carmona has published extensively and received numerous awards, decorations, and local and national recognition for his achievements. A strong supporter of community service, he has served on community and national boards and provided leadership too many diverse organizations.

Born and raised in New York City, VADM Carmona dropped out of high school and enlisted in the U.S. Army in 1967. While enlisted, he received his Army General Equivalency Diploma, joined the Army's Special Forces, ultimately becoming a combat-decorated Vietnam veteran, and began his career in medicine. After leaving active duty, VADM Carmona attended Bronx Community College of the City University of New York, where he earned his Associate of Arts degree. He later attended and graduated from the University of California, San Francisco, with a Bachelor of Science degree (1977) and medical degree (1979). At the University of California Medical School, VADM Carmona was awarded the prestigious gold-headed cane as the top graduate. He also earned a Masters of Public Health from the University of Arizona in 1998.

Noreen M. Clark, Ph.D.

Noreen M. Clark, Ph.D., is Dean of the University of Michigan School of Public Health, Marshall H. Becker Professor of Public Health, and Professor of Pediatrics, University of Michigan Medical School. She is interested in systems, policies and programs that promote health, prevent illness, and enable individuals to manage disease.

Dr. Clark has served in numerous leadership positions. She serves as National Program Director for the Robert Wood Johnson Foundation *Allies Against Asthma* Program. From 1999–2002, she was a member of the Advisory Council of the National Institute of Environmental Health Sciences. She has been president of the Society for Public Health Education and chair of the Public Health Education Section of the American Public Health Association (APHA). She has served as chair of the Behavioral Science Section of the American Thoracic Society, as a member of the Pulmonary Diseases Advisory Committee for the National Heart, Lung, and Blood Institute, and as a member of the Institute's Advisory Committee on Prevention, Education, and Control. Dr. Clark is a member of the Coordinating Council of the National Asthma Education and Prevention Program and of its Science Base Committee, and has chaired the American Lung Association (ALA) Technical Advisory Group on Asthma, and the Lung Diseases Care and Education Committee. She has served on both the Board and Council of the ALA. She chaired the Institute of Medicine Committee on Damp Indoor Spaces and Health. She is the former editor of *Health Education and Behavior* and is currently Associate Editor of *Annual Reviews of Public Health*. Among other honors, she is the recipient of the Distinguished Fellow Award, the highest honor bestowed by the Society for Public Health Education; the Derryberry Award for outstanding contribution to health education in behavioral science given by the APHA; the Health Education Research Award

conferred by the National Asthma Education Program for leadership and research contributions; the Distinguished Career Award in Health Education and Promotion given by the APHA; the Behavioral Science Lifetime Achievement Award of the American Thoracic Society; and the Healthtrac Education Prize. She is a member of the Institute of Medicine of the National Academy of Sciences.

Dr. Clark's primary research specialty is management of disease, and she has conducted many large-scale program evaluations. She is attempting to identify the elements of self-regulation, and uses management of asthma and heart disease as models for examining constructs. Her studies of self-management have contributed to the research literature and the field of practice by demonstrating that educational interventions can decrease asthma hospitalizations and medical emergencies. Her work has resulted in an archetype educational program for health care facilities distributed by the National Institutes of Health and used in hundreds of clinics nationally and internationally. A program developed in subsequent research to adapt the model for use in public schools is being disseminated by the ALA and has to date reached almost 500,000 American school children. Other model programs for management of asthma and heart disease by patients, clinicians, and communities are currently being evaluated by Dr. Clark and her research team.

Dr. Clark has extensive international experience. Her research has focused on development and testing of interventions designed to improve health status, quality of life, and collaborative activity among rural people in Kenya and in the Philippines. In addition, she has been a consultant for a wide range of organizations working around the world, including the Ethiopian Women's Welfare Association, the Ministry of Education in Nepal, the Asia Foundation in Pakistan, the Directorate of Health in Portugal, the World Bank, the United Nations Development Program, the Synergos Institute, the Community Health Authority of Madrid, and the Beijing Heart, Lung and Vessel Institute, among others. She serves on the board of directors of World Education Inc. and of Family Care International. Dr. Clark is a member of the Council on Foreign Relations, has served on the Overseas Development Council, and is on the board of the Aaron Diamond Foundation.

Elizabeth A. Cotsworth, B.A., M.A.

Elizabeth A. Cotsworth, B.A., M.A., is currently the Office Director of the U. S. Environmental Protection Agency's Office of Radiation and Indoor Air (ORIA). Ms. Cotsworth provides national direction for protecting people and the environment from harmful and avoidable exposure to radiation, as well as protective measures and guidance for indoor air environments. Prior to joining ORIA, Ms. Cotsworth was the Office Director of the Office of Solid Waste (OSW) from 1997 to 2002, after holding a series of positions managing national hazardous and solid waste programs. She entered the Agency as a Management Intern in 1973. She holds a B.A. degree from Chatham College in History and an M.A. degree from the University of Virginia in Government and Foreign Affairs.

Jean M. Cox-Ganser, Ph.D.

Jean Cox-Ganser, Ph.D., is Research Team Leader for the Field Studies Branch of the Division of Respiratory Disease Studies (DRDS) of the National Institute for Occupational Safety and Health (NIOSH). She is a primary investigator in a 5-year NIOSH research program on Work-Related Asthma in Office Buildings and Schools, and is currently involved in planning for continued work on Indoor Environmental Quality work in schools. Dr. Cox-Ganser is also team leader for the NIOSH National Occupational Research Agenda (NORA) Indoor Environment (IE) team. The goal of the NORA IE team is to focus and facilitate research that will improve the health of workers in indoor environments.

Dr. Cox-Ganser has served as Acting Deputy Director of DRDS and Acting Team Leader of the Epidemiology Team at DRDS. She was a member of the editorial committee for the World Health Organization (WHO) proposed document *Guidance for Biological Agents in the Indoor Environment* and was program leader for the NIOSH NORA project “Work-related Asthma in Offices and Schools.” At West Virginia University, she has served as Post-Doctoral Research Fellow in the Department of Animal Science, as Bio-Statistician in the Department of Community Medicine, and as Adjunct Assistant Professor, Department of Community Medicine.

Dr. Cox-Ganser received a B.Sc. degree in Animal Behavior and Immunology and B.Sc. and M.Sc. degrees in Biological Sciences from the University of Natal, South Africa. She earned her Ph.D. degree in Animal Science and an M.S. degree in Statistics from West Virginia University.

Jerome P. Dion, M.S.

Jerome P. Dion is the Supervisor of Research and Development for the Building Technologies Program in the Office of Energy Efficiency and Renewable Energy of the Department of Energy (DOE). Mr. Dion has served in a variety of capacities in Efficiency and Renewables over the past 13 years, including Corporate Planning Lead, and Senior Advisor in the Federal Energy Management Program and Office of Building Technologies, State and Community Programs (predecessor organization to the Building Technology Program). Prior to joining DOE, he served the Arizona Energy Office for 10 years, leaving as Planning and Policy Program Manager. Mr. Dion holds a Master of Urban Planning degree from the State University of New York at Buffalo.

Peyton A. Eggleston, M.D.

Peyton A. Eggleston, M.D., is the Director of the Center for Children’s Environmental Health at the Johns Hopkins University, one of a network of Centers of Excellence sponsored by the National Institute of Environmental Health Sciences and the U.S. Environmental Protection Agency. He is currently directing several clinical trials of the effect of allergen abatement on chronic asthma.

After graduation from the University of Virginia medical school, Dr. Eggleston received training in Pediatrics and in Allergy-Immunology at the University of Washington. He returned to the University of Virginia faculty in 1972, and then joined the Johns Hopkins University in 1981, where he is now a Professor of Pediatrics in the School of Medicine and of Environmental Health Sciences in the School of Public Health. His research interest has been in the area of the contribution of IgE-mediated inflammation to chronic asthma. He participated in immunotherapy trials in pediatric asthma and in the use of Fel d 1 peptides. Most of his work has addressed the characterization of home environmental allergens and their relation to acute and chronic airway disease, especially the acute effects of airborne animal allergens and the chronic effects of cockroach and dust mite allergens. He participated in the National Cooperative Inner City Asthma Study that described the effect of cockroach and rodent allergen exposure on chronic asthma morbidity in inner city populations.

Dr. Eggleston's *Curriculum Vitae* lists over 190 publications. He serves on the editorial board of the *Journal of Allergy and Clinical Immunology*. He was a member of the American Board of Allergy and Immunology and has been an active member of the Academy of Asthma, Allergy and Immunology for most of his career.

Henry Falk, M.D., M.P.H.

Henry Falk, M.D, M.P.H., currently heads two organizations spearheading the Department of Health and Human Services' work in environmental health. He serves as Director of both the National Center for Environmental Health (NCEH) and the Agency for Toxic Substances and Disease Registry (ATSDR). In 2003, these two entities consolidated to form NCEH/ATSDR. At NCEH, Dr. Falk heads the federal government's efforts in preventing and controlling environment-related diseases, illness, and deaths. He previously served at NCEH for 14 years as director of the Division of Environmental Hazards and Health Effects. At ATSDR, which was created by the 1980 Superfund legislation, Dr. Falk leads the federal agency whose mission is to protect public health against toxic substances in the environment.

Dr. Falk earned his medical degree from the Albert Einstein College of Medicine in 1968. He received a master's degree from the Harvard School of Public Health in 1976. He is board certified in Pediatrics as well as Public Health and General Preventive Medicine. Dr. Falk arrived at the Centers for Disease Control and Prevention (CDC) in 1972. He is also a 30-year veteran of the U.S. Public Health Service Commissioned Corps. This service culminated with his being named rear admiral and an appointment as Assistant U.S. Surgeon General.

Throughout his career at CDC, Dr. Falk has brought learning and leadership to myriad public health projects around the country and the world. His work includes contributions to the federal responses to Three Mile Island, Mount St. Helens, Hurricanes Hugo and Andrew, and the terrorist attacks of September 11, 2001.

Dr. Falk has written or co-written more than 100 publications in a variety of subjects, including vinyl chloride-induced liver cancer, prevention of lead poisoning, and health effects of environmental hazards. Widely recognized for his distinguished work and service, his honors include the Vernon Houk Award for Leadership in Preventing Childhood Lead Poisoning and the Homer C. Calver Award from the American Public Health Association. He has also received CDC's William C. Watson Jr. Medal of Excellence, as well as the Distinguished Service Award from the U.S. Public Health Service.

William J. Fisk, B.S., M.S.

William J. Fisk, B.S., M.S., is a Senior Staff Scientist and the Department Head of the Indoor Environment Department at the Lawrence Berkeley National Laboratory, managed by the University of California. The Department staff of 60 conducts research on building ventilation, indoor environmental quality, energy use, exposure and risk assessment, and the relationship of indoor environmental quality to health and work performance. In addition to department leadership since 2000, Mr. Fisk has conducted research for 25 years at Lawrence Berkeley National Laboratory on indoor environmental quality. His current research focuses on technologies for ventilating and controlling indoor air quality, on the relationships of indoor air quality and related building characteristics with health, and on the economic consequences of indoor environmental quality.

Mr. Fisk serves on the Editorial Board for the journal *Indoor Air*, was elected to the international Academy of Indoor Air Sciences in 1999, and has served on National Academy of Sciences – Institute of Medicine committees on Asthma and Indoor Air Quality and on Damp Buildings, Mold and Health. He also served for several years on the National Occupational Research Agenda – Indoor Environment Team and has been active in the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE).

Mr. Fisk received his M.S. and B.S. degrees in mechanical engineering from the University of California, Berkeley and the University of New Mexico, respectively.

John R. Girman, M.S.

John R. Girman is the Center Director for the U. S. Environmental Protection Agency (EPA) Indoor Environments Division Center for Analysis and Studies. His Center is responsible for the technical analysis and content of reports and guidance documents on indoor air quality, as well as for providing technical input into policy decisions and developing research agendas for indoor air quality. The Center is currently developing priorities for research on indoor air quality, developing criteria for good indoor air quality in homes, examining economic considerations for indoor air quality, analyzing data from a major national survey of baseline indoor air quality and occupant perceptions in office buildings (the BASE Study) and developing a strategy for Indoor Air Toxics.

Previously, Mr. Girman was the Deputy Manager of California's Indoor Air Quality Program and a Group Leader in Lawrence Berkeley Laboratory's Indoor Environment Program. He has worked on indoor air quality for more than 25 years, including research on combustion appliance emissions, volatile organic emissions from building materials and consumer products, instrument development and protocols, study design and risk assessment. Mr. Girman has authored or co-authored more than 60 publications and reports on indoor air quality. He is a founding member of the International Society of Indoor Air Quality and Climate (ISIAQ) and has served as its Vice President (Policy) and as a Trustee. He also served as an Editorial Advisor for the journal *Indoor Air*, as a Councilor for the International Society of Exposure Assessment (ISEA) and a member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE) Environmental Health Committee. He has been elected to the International Academy of Indoor Air Quality Sciences.

Some of his accomplishments include initiating and conducting EPA's Building Assessment Survey and Evaluation Study (BASE) and supervising development of the EPA guidance for improving indoor air in schools, *IAQ Tools for Schools*. He also supervised the laboratory development and a comparative field validation of a commercially successful formaldehyde passive sampler and directed research to determine and model the organic emissions from consumer products, including comparisons of average concentrations and breathing-zone concentrations and a field validation of a model. He also conducted an epidemiologic study of carbon monoxide poisonings in California and a major field study of residential radon concentrations. He was co-chair of the committee that developed California's Minimum Ventilation Standard, the first state-operational ventilation standard, and he conducted a chamber emissions and modeling study for the California Attorney General in support of Proposition 65 that led to a national consumer product recall and reformulation and a substantial financial settlement for the State of California.

James E. Hill, Ph.D.

James E. Hill, Ph.D., joined the National Institute of Standards and Technology (NIST, formerly the National Bureau of Standards [NBS]) as a Mechanical Engineer in the Thermal Engineering Section, Center for Building Technology, in September 1972. He served as Leader of the Thermal Solar Group from 1978 to 1980 and Chief of the Building Equipment Division from June 1980 until October 1986 when the Division was expanded and reorganized as the Building Environment Division. During 1983, Dr. Hill served as a Program Analyst in the NBS Office of the Director. Dr. Hill resumed his duties as Division Chief in January 1984. From 1994 to 1997, Dr. Hill was on a part-time assignment in the NIST Advanced Technology Program administering a three-year program on Refrigeration Technology. Dr. Hill served as Deputy Director of the Building and Fire Research Laboratory from February 1999 to October 2003. His responsibilities included strategic planning, program and professional development for the Laboratory. In October 2003, he was appointed Director of the Building and Fire

Research Laboratory. Dr. Hill was Assistant Professor of Mechanical Engineering at the University of Maryland for 3 years before joining NBS in 1972.

Dr. Hill is a member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), has held numerous positions on committees and councils of the Society since 1972, and was the Society's President in 1996–1997. He was named a Fellow of ASHRAE in 1992 and received their Distinguished Service Award in 1995. He held student memberships in Tau Beta Pi, Pi Tau Sigma, Omicron Delta Kappa, and Phi Kappa Phi. He is listed in the 11th edition of American Men of Science. He received the Crosby Field Award from ASHRAE for the best overall Technical Paper in 1975 and received an additional ASHRAE award in 1976 for the Best Technical Paper presented at the 1976 Seattle Annual Meeting. He received the 1976 Department of Commerce (DOC) Silver Medal for “significant national and international contributions to the development of efficient solar energy systems.” He has authored over 60 technical papers in the building research/solar energy area.

In 1988 and 1998, the President of the United States conferred the rank of Meritorious Executive in the Senior Executive Service on Dr. Hill. From 1985–1991, Dr. Hill served on the advisory committee for the Architectural and Engineering Department at the Pennsylvania State University and is currently on the advisory committee for the Mechanical Engineering Department of Georgia Institute of Technology and the Environmental Energy Technologies Division of the Lawrence Berkeley Laboratory. In 1994, Dr. Hill was named DOC-NIST Engineer of the Year and received the DOC Gold Medal for “significant technical leadership in mechanical engineering research to improve environmental systems of buildings.”

Dr. Hill received a B.S. degree in Mechanical Engineering (1963) from Virginia Polytechnic Institute and M.S. and Ph.D. degrees in Mechanical Engineering (1971, 1973) from Georgia Institute of Technology.

Michael Hodgson, M.D., M.P.H.

Michael Hodgson, M.D., M.P.H., is Director, Occupational Health Program, Office of Public Health and Environmental Hazards, Veterans Health Administration. Dr. Hodgson began work on health and the built environment in 1981 as an Epidemic Intelligence Service Officer for the Centers for Disease Control (CDC), investigating outbreaks of disease in wet and “moldy” buildings, leading the National Institute for Occupational Safety and Health (NIOSH)/CDC's 1984 guidance on moisture control in the workplace. He has studied objective health outcomes, symptoms, and exposures in a wide variety of settings (schools, office buildings, homes, and health care) focused on moisture and bioaerosols and on volatile emissions. He has worked on novel strategies to document health effects, on questionnaire use, and on causal relationships between symptoms and a wide variety of exposures (humidity, volatile organic compounds, bioaerosols, work organization/stress, and thermal comfort).

Dr. Hodgson has been active in the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) since 1985 and was a member of several ASHRAE committees: he was chair of the Environmental Health Committee for 3 years, a voting and non-voting member of the Standing Standards Project Committee 62 (Ventilation for Acceptable Air Quality), and a corresponding member for Thermal Comfort. He was also on the steering committee for several of the International Conferences on Indoor Air Quality and Climate. Additional formal research interests have included metabolic bone disease in uremia and calcium homeostasis, the effects of organic solvents on the liver and brain, low-level environmental exposures on chronic diseases of adults, and healthcare worker hazards.

Dr. Hodgson attended medical school at the Universities of Wuerzburg, Heidelberg, and Frankfurt, where he obtained his M.D. degree in 1975. He obtained an M.P.H. in epidemiology from the University of Pittsburgh School of Public Health in 1985. Dr. Hodgson is board-certified in internal medicine (residency at DC General Hospital and the Washington, DC Veterans Administration Medical Center and in occupational medicine (CDC/NIOSH). He served as a commissioned officer in the Epidemic Intelligence Service, Public Health Service, CDC (1981–1983); was director of the Occupational and Environmental Medicine Program in the Department of Medicine at the University of Pittsburgh School of Medicine (1986–1991); and established and directed a residency program in occupational medicine at the University of Connecticut (1991–1998). In 1998 and 1999, he served as a Senior Scientist in the Office of the Director, NIOSH, before moving to the Veterans Health Administration.

David E. Jacobs, Ph.D., CIH

David Jacobs, Ph.D., is with the Office of Community Planning and Development at the U.S. Department of Housing and Urban Development (HUD). He has worked on lead-based paint and healthy homes issues, and related research, public education, regulatory, enforcement and training activities. He has testified before Congress on several occasions and has published numerous scientific papers and other articles. He holds degrees in Environmental Engineering, Science and Technology Policy, Environmental Health, and Political Science and is a board-certified industrial hygienist. He is a principal author of the President's Task Force report on childhood lead poisoning prevention, the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, and several reports to Congress.

Kevin Kampschroer

Kevin Kampschroer is the Director of Research Expert Services for the General Services Administration's (GSA) Public Buildings Service (PBS). Focusing on the relationships among the physical environment, individual and group behavior and organizational performance, Mr. Kampschroer has developed a framework—of building + behavior + business—tested in real office conditions, that is unique. His research team's goal is a fundamental re-thinking of the practice of workplace making. To support this ground-

breaking effort, he has forged alliances with key forward-thinking companies, and developed collaborations with leading universities, including Carnegie Mellon, University of California at Berkeley, Georgia Institute of Technology, University of Michigan, and MIT.

Before establishing PBS' research and workplace innovations initiatives, Mr. Kampschroer served in a variety of GSA regional and headquarters positions. He contributed to the creation of real estate portfolio management, establishment of performance measures linked to pay and budget, and he developed an overall information technology strategy for a re-engineered real estate business in GSA. He was the project manager for the Ronald Reagan Federal Building and Trade Center, then the second largest office building in the United States. He has been employed by GSA since 1975. Mr. Kampschroer is a graduate of Yale University.

Mr. Kampschroer has lectured at Harvard, MIT, Johns Hopkins and Georgia Institute of Technology and frequently presents for various industry groups such as CoreNet Global. He is the Research Chair for the Advanced Building Systems Integration Consortium (at Carnegie Mellon University) and the Industry Partner Chair for the Center for the Built Environment (at the University of California at Berkeley), and the recipient of the International Interior Design Association's (IIDA) Star Award for 2004.

In creating the Workplace 20•20 program, Mr. Kampschroer and his team have applied all the research completed to date, together with best practices in the field to create a new process that emphasizes organizational performance before design. In its pilot stage, Workplace 20•20 will develop and deliver between 25 and 40 projects for federal customers over the next 3–4 years. Each project couples the new workplace-making process with research in the ultimate effectiveness of spatial objectives to influence productivity and organizational performance.

Kathleen Kreiss, M.D.

Kathleen Kreiss, M.D., is Branch Chief for the Field Studies Branch of the Division of Respiratory Disease Studies (DRDS) of the National Institute for Occupational Safety and Health (NIOSH). She is also Adjunct Professor, Department of Community Health, West Virginia University School of Medicine. From 1992 to 1996, she served as Residency Director, Occupational and Environmental Medicine Residency/Fellowship at the University of Colorado School of Medicine.

Dr. Kreiss was Director, Occupational and Environmental Medicine Division, Department of Medicine, National Jewish Center for Immunology and Respiratory Medicine in Denver, CO, as well as Assistant Associate (1989) and Full (1995) Professor, Department of Preventive Medicine and Biometrics Department of Medicine, University of Colorado School of Medicine.

She received her M.D. degree from Harvard University and completed her internship at San Francisco General Hospital and residencies at Beth Israel Hospital, Boston, and the

Centers for Disease Control and Prevention (CDC). She received a B.A. degree in Biology from Radcliffe College. At CDC, she served as Epidemic Intelligence Service Officer, Center for Environmental Health, and Acting Chief, Special Studies Branch, Chronic Diseases Division.

Dr. Kreiss is co-author of “Improving the health of workers in indoor environments: priority research needs for a national occupational research agenda,” published in the *American Journal of Public Health* (2002), and author of “Building-related asthma,” published in *Clearing the Air, Asthma and Indoor Air Exposures*; Institute of Medicine: Committee on the Assessment of Asthma and Indoor Air (2000), as well as many other publications.

Hal Levin, B.Arch., ASHRAE Fellow

Hal Levin, B.Arch., ASHRAE Fellow, is a Research Architect with Building Ecology Research Group, Santa Cruz, California, and Scientist, Indoor Environment Department, Lawrence Berkeley National Laboratory. Mr. Levin has conducted research on the impact of buildings on occupant health and comfort as well as on the larger environment. For more than 26 years, he has been involved in research that includes the integration of knowledge about indoor and outdoor air pollution and other risk factors into the design of residential, educational, and commercial buildings and communities. He has been involved in many efforts to design buildings with minimal negative impact on occupants or the larger environment from ventilation design, building materials selection, energy consumption, and total environmental quality. He has been a strong proponent of life-cycle analysis and risk assessment as indicators of the sustainability of alternative designs, practices and buildings.

In addition to his academic and research activities, Mr. Levin has been active in professional education workshops and short courses on topics that include pollution prevention and indoor environmental quality management for schools, offices, and residences. He is a contributor to chapters in several books including *Indoor Air Quality Handbook* (McGraw-Hill, 2001). He is an Associate Editor of the journal *Indoor Air*, and serves on the Editorial Board of the journal *Building Research and Information*. He served as Vice-President (1997–2000) of the International Society of Indoor Air Quality and Climate (ISIAQ) and was founding chairman (1984–present) of American Society for Testing and Materials (ASTM) Subcommittee D22.05 on Indoor Air. He was the founding editor of the newsletter *Indoor Air Quality Update* and the founding editor and publisher of the newsletter *Indoor Air Bulletin*.

Mr. Levin is a member of the Air & Waste Management Association, the International Society of Indoor Air Quality and Climate (founding member), the International Society of Exposure Analysis (founding member), the American Chemical Society, the North American Solar Energy Society, and Society for Environmental Toxicology and Chemistry. Currently, Mr. Levin is chairman of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)’s Guideline Project Committee 10P, Criteria for Achieving Acceptable Indoor Environments, and a member

of ASHRAE Standing Standard Project Committee (SSPC) 55, Thermal Conditions for Human Occupancy. Mr. Levin served for 10 years as a member of ASHRAE SSPC62, Ventilation and Indoor Air Quality, and for two 4-year terms as a member of ASHRAE's Environmental Health Committee. He also serves as a voting member of ASHRAE Technical Committee 2.1, Physiology and the Human Environment. He serves as a consultant to European Regional Office for Health of the World Health Organization on Children's Health and the Environment. He has consulted to government agencies in Denmark, Canada, and Australia among others, and he has lectured extensively in North America, Europe, Japan, and Australia.

Mr. Levin was chosen by the International Academy of Indoor Air Sciences to serve as President of the 9th International Conference on Indoor Air Quality and Climate, Indoor Air 2002, held in Monterey, California. He also organized and serves as President of the non-profit Indoor Air 2002 Inc. which, in addition to being responsible for administration of Indoor Air 2002, has also prepared and is publishing five post-conference journal special issues or supplements with papers expanded from the Indoor Air 2002 conference papers. He has served as an international advisor to Indoor Air '90, Indoor Air '93, Indoor Air '96, and Indoor Air '99. He has also served on the advisory committees of several "Healthy Buildings" conferences including HB2006 (Lisbon) and Indoor Air 2005 (Beijing), and is Convener for the Indoor Environment section of Sustainable Buildings 2005 (Tokyo).

Mr. Levin received a B.A. degree in English and a B. Architecture degree from the University of California, Berkeley. From 1978 to 1989, he was Research Specialist at the College of Environmental Design, and from 1978 to 1983, Lecturer in the Department of Architecture, University of California, Berkeley. From 1979 to 1983, he was Lecturer in the Board of Studies in Environmental Studies, University of California, Santa Cruz.

Vivian Loftness, B.S., M.Arch., F.A.I.A.

Vivian Loftness, B.S., M.Arch., FAIA, is Professor of Architecture at Carnegie Mellon University, Pittsburgh, PA, and recently completed 10 years as Head of the School of Architecture. She also serves as Senior Researcher of the Center for Building Performance and Diagnostics at Carnegie Mellon. She is an internationally renowned researcher, author, and educator with over 30 years of focus on environmental design and sustainability, advanced building systems and systems integration, and climate and regionalism in architecture, as well as design for performance in the workplace of the future.

Supported by a university-building industry partnership, the Advanced Building Systems Integration Consortium, she is a key contributor to the development of the Intelligent Workplace, a living laboratory of commercial building innovations for performance. She has authored a range of publications on international advances in the workplace. She has served on six National Academy of Science panels, is a member of the Academy's Board on Infrastructure and the Constructed Environment, and has given three Congressional testimonies on sustainable design. Her work has influenced both national policy and

building projects, including the Adaptable Workplace Lab at the U.S. General Services Administration and the Laboratory for Cognition at Electricité de France.

Over the past 5 years, Ms. Loftness has led the BIDS™ (Building Investment Decisions Support) research effort, with over 150 case studies linking environment, health, and productivity to life-cycle decision-making and the quality of the built environment. As a result of her research, teaching, and professional consulting, she received the 2002 National Educator Honor Award from the American Institute of Architecture Students and a 2003 “Sacred Tree” Award from the U.S. Green Building Council (USGBC).

Ms. Loftness has Bachelors of Science and Masters of Architecture degrees from the Massachusetts Institute of Technology. She is on the National Board of the USGBC, American Institute of Architects Committee on the Environment (AIACOTE) (2005 national chair), Technical and Scientific Advisory Committee (TSAC), Advanced Research and Technology Institute (ARTI), International Design Center for the Environment (IDCE), and the Department of Energy’s Federal Energy Management Advisory Council (FEMAC). She is a Leadership in Energy and Environmental Design (LEED)-accredited registered architect, and a Fellow of the American Institute of Architects.

Clifford S. Mitchell, M.S., M.D., M.P.H.

Clifford S. Mitchell, M.S., M.D., M.P.H., is an Associate Professor of Environmental Health Sciences at the Johns Hopkins Bloomberg School of Public Health. A graduate of Williams College, he attended medical school at Case Western Reserve University and holds Masters degrees in Technology and Policy from MIT and in Public Health from Johns Hopkins University. He is board certified in both Internal Medicine and Preventive (Occupational) Medicine and has been on the faculty of the School of Public Health since 1992. He currently serves as Director of the Occupational Medicine Residency, and his research and clinical practice focus on the health effects of indoor environmental exposures.

Thomas A. E. Platts-Mills, M.D., Ph.D.

Thomas A. E. Platts-Mills, M.D., Ph.D., is the Oscar Swineford Jr. Professor of Medicine and Head of the Asthma and Allergic Disease Center at the University of Virginia. Dr. Platts-Mills is vice president of the American Academy of Allergy Asthma and Immunology (AAAAI) and has been active in educational efforts nationally for 20 years. He has published over 300 papers and has been a member of the Editorial Board of more than 10 journals. In addition, he was a member of the Immunological Sciences Study Section for the National Institutes of Health and in 2003 was chairman of the special interest study section on Asthma and Allergic disease for the National Institute of Allergy and Infectious Diseases (NIAID).

Dr. Platts-Mills has also served on the National Asthma Education and Prevention Program (NAEPP) for the National Heart, Lung, and Blood Institute (NHLBI). He has trained more than twenty specialists in Allergic Disease and has supervised eight Ph.D. candidates. He received his degree in Animal Physiology from Oxford University (1963) and received an M.D. degree from St. Thomas Hospital. In 1981 he was made a member of the Royal College of Physicians in London and became a fellow in 1982. He did his training in Allergy and Immunology with Dr. Ishizaka and Dr. Lichtenstein at Johns Hopkins (1971–1974) and in 1983 received a Ph.D. in Immunology from London University.

Dr. Platts-Mills has carried out research in many different aspects of the role of indoor allergens in asthma. Starting with the characterization of the major dust mite allergen (Der p 1) his group developed the first assays for mite allergen and defined the form in which dust mite allergen becomes airborne. In addition, their assays were used to define the evidence for allergen exposure in the development of asthma and the scientific basis for allergen avoidance in the treatment of asthma. Those studies have been extended to the investigation of risk factors for acute episodes of asthma, focusing on emergency room and hospitalized patients. The results provided better evidence about the relevance of indoor allergens and also about the relevance of different allergens in different communities.

CAPT Stephen C. Redd, M.D.

Captain Stephen C. Redd, M.D., is Chief of the Air Pollution and Respiratory Health Branch of the National Center for Environmental Health, Centers for Disease Control and Prevention. Since assuming this position in 1997, Captain Redd has overseen development of a three-part branch strategy to reduce the health burden from asthma in the United States. The components of the strategy call for improving asthma tracking activities, implementing scientifically proven programs, and working in partnership. Captain Redd also serves as Co-chair of the Asthma Priority Area Workgroup, President's Task Force on Environmental Health Risks and Safety Risks to Children. He is a member of the National Advisory Council for two asthma initiatives sponsored by the Robert Wood Johnson Foundation: Improving Asthma Care for Children, and Allies Against Asthma. Over the past several years, the Air Pollution and Respiratory Health Branch has become increasingly involved in indoor air issues, particularly examining the health effects of exposure to indoor mold.

Jonathan M. Samet, M.D., M.S.

Jonathan M. Samet, M.D., M.S., is Professor and Chairman of the Department of Epidemiology of the Johns Hopkins University Bloomberg School of Public Health and the Jacob I. and Irene B. Fabrikant Professor in Health, Risk, and Society. Dr. Samet received a Bachelors degree in Chemistry and Physics from Harvard College, an M.D. degree from the University of Rochester School of Medicine and Dentistry, and a Master of Science degree in Epidemiology from the Harvard School of Public Health. He is

trained as a clinician in the specialty of Internal Medicine and in the subspecialty of Pulmonary Diseases. From 1978 through 1994, he was a member of the Department of Medicine at the University of New Mexico.

At the Johns Hopkins University Bloomberg School of Public Health, he is Director of the Institute for Global Tobacco Control and Co-Director of the Risk Sciences and Public Policy Institute. His research has addressed the effects of inhaled pollutants in the general environment and in the workplace. He has written widely on the health effects of active and passive smoking and has served as Consulting Editor and Senior Editor for Reports of the Surgeon General on Smoking and Health and the National Cancer Institute's Monographs on Tobacco Control. He has edited books on the epidemiology of lung cancer and on indoor and outdoor air pollution, including *Indoor Air Pollution: A Health Perspective* (1991) and *The Indoor Air Quality Handbook* (2000). He has served on the Science Advisory Board for the U.S. Environmental Protection Agency and was Chairman of the Biological Effects of Ionizing Radiation Committee VI and the Committee on Research Priorities for Airborne Particulate Matter of the National Research Council. He presently chairs the Board on Environmental Studies and Toxicology of the National Research Council. He was elected to the Institute of Medicine of the National Academy of Sciences in 1997.

Dr. Samet is a member of the Society for Epidemiologic Research (President 1989–90), the American Thoracic Society, the American College of Epidemiology (President 2000–01), the International Society of Indoor Air Quality and Climate, the International Epidemiological Association, and the American Public Health Association. He also served as Chair of the Working Group on Smoking and Involuntary Smoking for the International Agency for Research on Cancer of the World Health Organization. He served as Chairman of the Epidemiology Cancer Study Section of the National Institutes of Health from 2002–2004 and is presently an Editor for *Epidemiology*. Dr. Samet serves as a member of the Awards Assembly of the General Motors Cancer Research Foundation and the Epidemiology Review Board of the I.E. duPont de Nemours and Company, Inc. Dr. Samet served as an expert witness in tobacco litigation brought by the state of Minnesota against the tobacco industry and recently served as an expert witness for the U.S. Department of Justice in the government's case against the tobacco industry. Dr. Samet served as the Senior Scientific Editor, as well as a chapter author, on the 2004 *Report of the Surgeon General: The Health Consequences of Smoking*. He is also serving as Senior Scientific Editor for the upcoming Surgeon General's Report on secondhand smoke.

Dr. Samet has received numerous awards for his research and public health service, including the Surgeon General's Medallion (1990), the Alumni Award of Merit, Harvard School of Public Health (2001), the Joseph W. Cullen Memorial Award from the American Society of Preventive Oncology (2002), and the Dr. William Cahan Distinguished Professor Award from the Flight Attendant Medical Research (2003).

John D. Spengler, Ph.D.

John D. Spengler, Ph.D., is the Akira Yamaguchi Professor of Environmental Health and Human Habitation in the Exposure, Epidemiology and Risk Program, Department of Environmental Health, at Harvard University's School of Public Health, Boston, Massachusetts.

Professor Spengler has conducted research in the areas of personal monitoring, air pollution health effects, aerosol characterization, indoor air pollution and air pollution meteorology. More recently, he has been involved in research that includes the integration of knowledge about indoor and outdoor air pollution as well as other risk factors into the design of housing, buildings and communities. Several new efforts are underway to investigate housing design and its effects on ventilation rates, building materials selection, energy consumption, and total environmental quality in homes. The tools of life-cycle analysis and risk assessment and activity-based costing are being used as indicators to measure the sustainable attributes of alternative designs, practices and community development.

Professor Spengler has been active in professional education workshops and short courses on topics that include pollution prevention and indoor environmental quality management for schools, offices and hospitals, and distance learning courses (<http://courses.dce.harvard.edu/~environment/>). He is co-editor of three books: *Indoor Air Quality Handbook* (McGraw-Hill, 2001); *Particles in Our Air: Concentrations and Health Effects* (distributed by Harvard University Press, 1996); and *Indoor Air Pollution: A Health Perspective* (Johns Hopkins University Press, 1991). He is on the editorial board of the journal *Indoor Air*, and he is the President (2002–2005) of the International Academy of Indoor Air Sciences.

Professor Spengler is a member of the Air & Waste Management Association, the International Society of Indoor Air Quality and Climate (founding member), the International Society of Exposure Analysis (founding member), the American Meteorological Society, and the American Chemical Society. Currently, Professor Spengler is a member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)'s Environmental Health Committee. Recently, he served as a member of the National Research Council/National Academy of Sciences' Committee on Air Quality in Passenger Cabins of Commercial Aircraft (2000–2001). He has also served on the American Lung Association's National Air Conservation Commission (1997–1998) and on the Scientific Advisory Panel of the Mickey Leland National Urban Air Toxics Research Center (1995–1998). He serves as an advisor to the World Health Organization on indoor air pollution, personal exposure and air pollution epidemiology, and he has served as either a member or consultant on various U.S. Environmental Protection Agency Science Advisory Board committees. In 2003, Professor Spengler received a Heinz Award for the Environment.

Along with Dr. Douglas Dockery, Professor Spengler was a co-organizer of the international 1998 ISEE/ISEA Conference, held in Boston, MA (August 1998). From

1981, when the first International Conference on Indoor Air Quality and Climates was held in Amherst, MA, to the present, Professor Spengler has served as a chair or co-chair for various technical sessions.

Professor Spengler received a B.S. degree in physics (1966) from the University of Notre Dame, a Ph.D. degree in atmospheric sciences (1971) from the State University of New York-Albany, and a M.S. degree in environmental health sciences (1973) from Harvard University.

Eileen Storey, M.D., M.P.H.

Eileen Storey, M.D., M.P.H., is the Co-Director of the Center for Public Health and Health Policy at the University of Connecticut, Chief of the Division of Occupational and Environmental Medicine, and Director of the Center for Indoor Environments and Health at the University of Connecticut Health Center. An occupational medicine physician and internist, she works with a team of physicians, nurses, industrial hygienists, and environmental health specialists to evaluate the impact of indoor environments on health, particularly respiratory conditions. Her research focuses on the spectrum of respiratory disease associated with indoor environments, with particular interest in the relationship between building-related upper respiratory syndromes (rhinitis, sinusitis) and the development of lower respiratory syndromes (asthma, hypersensitivity pneumonitis). Her team is working to develop exposure assessment tools that will help to better characterize indoor risk factors. The Center for Indoor Environments and Health provides support and consultation to employees, employers, building owners, school districts, and public health agencies to promote efforts at prevention and remediation in buildings.

Dr. Storey was a Fellow with the Oak Ridge Institute for Science and Education (ORISE), assigned to the Division of Respiratory Disease Studies at the National Institute for Occupational Safety and Health (NIOSH) in 2001–2002. She is Co-Leader of the National Occupational Research Agenda (NORA) Indoor Environment Team. She serves on the Executive Committee of the Asthma Regional Council in New England.

Dr. Storey provides clinical services for individuals with concerns about occupational and environmental exposure. Her group recently published a book in cooperation with the U.S. Environmental Protection Agency (EPA): *Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture Indoors*. (oehc.uchc.edu/clinser/indoor.atm)

Dr. Storey completed her medical degree at the Harvard Medical School (1978), a Master of Public Health at the Harvard School of Public Health (1978), and Internal Medicine training at West Virginia University in Morgantown, WV (1981). She is board certified in Internal Medicine and Occupational Medicine.

RADM Robert C. Williams, P.E., DEE

Rear Admiral Robert C. Williams has more than 25 years of experience in environmental engineering. He is the Chief Engineer of the U.S. Public Health Service, providing advice and consultation on public health engineering matters to the Surgeon General and to over 1200 engineers in the Public Health Service. He is also is the Chief of Staff, Office of the Surgeon General (OSG). Prior to his assignment to the OSG in 2004, he served as the Director, Division of Health Assessment and Consultation of the Agency for Toxic Substances and Disease Registry (ATSDR) since 1989. He received his B.S. in Civil Engineering and M. Eng. in Environmental Engineering from Texas A&M University and has continued his postgraduate education with courses in public health.

Rear Admiral Williams is a Registered Professional Engineer and serves, or has served, as an officer and member of national committees for several professional organizations including American Water Works Association, Water Environment Federation, American Society of Civil Engineers (ASCE Fellow Grade), Society of American Military Engineers (SAME Fellow) and the Commissioned Officers Association of the U.S. Public Health Service. He has been a Diplomate since 1992 and has served in various positions with the American Academy of Environmental Engineers (AAEE), including the Board of Trustees and his current position on the Certification by Eminence Committee. Rear Admiral Williams served on the Governing Board of the ASCE Environmental and Water Resources Institute from its inception until 2004. He currently serves on the Board of Directors of the Society of American Military Engineers.

He is an Adjunct Associate Professor at the Texas A&M University School of Rural Public Health and a member of the Emory University Academic Advisory Council, responsible for developing the University's environmental health curriculum. He has authored and presented more than 100 publications on a wide variety of environmental health issues, including the co-editing of four books.

Rear Admiral Williams received the Stanley Kappe Award from the AAEE in 2004. He has received the CFE Federal Environmental Engineer of the Year, USPHS Engineer of the Year, and NSPE Top Ten Federal Engineers. He received the Gorgas Medal from the Association of Military Surgeons of the United States and the ASCE Government Engineer of the Year in 2003. He is the recipient of the USPHS Meritorious Service Medal, two Outstanding Service Medals, three Commendation Medals, an Achievement Medal, Crisis Response Service Award, and ten Unit Commendation Medals. He has received several group awards including the DHHS Secretary's Distinguished Service Award, SAME Cumming Plaque, and ATSDR/CDC Honor Awards for Public Health Practice. He has also received several awards from professional organizations (e.g., ASCE Best Practice Paper) for his efforts in environmental engineering.

Samuel H. Wilson, M.D.

Samuel H. Wilson, M.D., is Deputy Director of the National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH), Research Triangle Park,

NC. A biochemist, he began his career as a Principal Investigator in 1970 at the NIH and remained there until 1991 when he moved to the extramural community to found a center focused in the area of genetic toxicology, structural biology, and functional genomics. Dr. Wilson moved to NIEHS as Deputy Director in 1996, where he has been instrumental in helping develop NIEHS programs in genetic susceptibility, functional genomics, children's health, minority institutions' research, health disparities research, and community involvement. Dr. Wilson has strengthened partnerships between NIEHS and other federal agencies concerned with environmental health and with the private sector. He has worked with the Institute of Medicine, National Academies of Science, to develop a Roundtable promoting discussions on long-term planning and a broader definition of environmental health, and he has worked with the National Research Council to develop a Committee addressing issues relevant to the applications of toxicogenomics.

Dr. Wilson has a long-term research interest in mammalian DNA metabolism. Over the past 15 years, he and his associates have focused their efforts on the mammalian base excision DNA repair pathway. Their work has improved our understanding of maintenance of genomic stability in mammalian cells. Dr. Wilson has authored and co-authored 300 research publications and has been editor of four reference volumes.

Dr. Wilson's recent activities include membership on numerous federal agency advisory groups. He has served as a scientific advisor to several private foundations involved in biomedical research. He was chair of the 2001 Mammalian DNA Repair Gordon Research Conference and co-chair of the 2002/2004 US-Japan and 2003 US-EU international conferences on DNA Repair. He is Associate Editor of *DNA Repair* and a member of the editorial board of the *Annual Review of Medicine*.

Dr. Wilson received a Bachelor of Arts degree in Chemistry from the University of Denver in 1961. He received his graduate and postdoctoral training in medicine and biochemistry at Harvard Medical School and the NIH, respectively.

James E. Woods, Ph.D., P.E., ASHRAE Fellow

James E. Woods, Ph.D., P.E., is the Executive Director of The Building Diagnostics Research Institute, Inc., in Chevy Chase, Maryland. In 1997 he retired as the William E. Jamerson Professor of Building Construction at Virginia Polytechnic Institute and State University. Previously, he served as Senior Engineering Manager and Senior Staff Scientist at Honeywell, and was Professor of Mechanical Engineering and Architecture at Iowa State University. He has over 40 years of experience in energy and environmental analyses and has been responsible for more than 25 research projects and 200 investigations related to indoor environmental quality and human responses in residences, office buildings, public assembly and monumental buildings, hospitals, schools, laboratories, and commercial aircraft.

Dr. Woods has authored or co-authored six books and more than 200 technical papers and is the co-holder of two patents. He has served as a consultant or advisor to many private and public agencies, including design engineering and architectural firms,

insurance companies, law firms, utility companies, state energy agencies, the U.S. General Services Administration, the U.S. Department of Energy, the National Institute of Standards and Technology, the U.S. Environmental Protection Agency, the U.S. Department of State, the Architect of the Capitol, the National Energy Management Institute, the National Center for Energy Management and Building Technology, the American Hospital Association, the American Lung Association, and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).

Dr. Woods is an ASHRAE Fellow and Life Member. He has chaired and served on numerous ASHRAE committees related to indoor air quality, environmental health, industrial air conditioning, physiology and human environment, thermal conditions for human occupancy, and ventilation and infiltration requirements. He has served as a Director-at-Large of ASHRAE and as chairman of the ASHRAE Presidential Ad Hoc Committee on Building Health and Safety Under Extraordinary Incidents. He is currently serving on the ASHRAE Standards and Environmental Health Committees, continues to serve as a member of the ASHRAE Presidential Committee on Homeland Security, and is serving as the ASHRAE representative to The Infrastructure Security Partnership (TISP) where he chairs the TISP Standards Subcommittee. He has testified in Senate and Congressional Hearings five times in the last 15 years regarding research needs for building environments, and has served as an expert witness in 29 administrative hearings and various court cases, including 15 depositions and six jury trials regarding environmental control, indoor air quality, and occupant exposure within buildings.

A Founding Member of the International Society of Indoor Air Quality and Climate (ISIAQ), Dr. Woods chaired the Organizing Committee for the international conference *Healthy Buildings/Indoor Air Quality 97* at Natcher Center, and is a Member of the International Academy of Indoor Air Sciences. He has served on the Science Advisory Board for the EPA, on the Technical Advisory Committee for the American Lung Association, on the Science Advisory Board for the Center for Indoor Air Research, and on several committees of the National Research Council.

Dr. Woods received his M.S. in Physiological Sciences (1971) and his Ph.D. in Mechanical Engineering (1974) from Kansas State University, and his B.S. in Mechanical Engineering (1962) from the University of New Mexico. He has maintained his professional registration as a Mechanical Engineer in Iowa since 1978.