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Standing Committee on the Use of Public Health Data in FSIS Food Safety Programs

Jim Riviere (IOM), chair, is the Burroughs Wellcome Fund Distinguished Professor of Pharmacology; Director, Center for Chemical Toxicology Research and Pharmacokinetics, College of Veterinary Medicine; and past Director of the Biomathematics Program of the College of Physical and Mathematical Sciences, North Carolina State University. He is an elected member of the Institute of Medicine of the National Academies and serves on its Food and Nutrition Board. From 2001 to 2003, he served on NRC's Committee on Scientific Criteria to Ensure Safe Food Subcommittee I on Meat and Poultry and chaired the Animal Dietary Supplements committee in 2007. He is the Editor of the *Journal of Veterinary Pharmacology and Therapeutics*, and co-founder and co-director of the USDA Food Animal Residue Avoidance Databank (FARAD) program. He has served as an officer in various Specialty Sections of the Society of Toxicology, on the Science Board of the Food and Drug Administration, and on the Editorial Boards of various toxicology, pharmacology, and veterinary journals. His honors include the 1999 O. Max Gardner Award from the Consolidated University of North Carolina, the 1991 Ebert Prize from the American Pharmaceutical Association, the Harvey W. Wiley Medal and FDA Commissioner's Special Citation, and the Lifetime Achievement Award from the European Association of Veterinary Pharmacology and Toxicology. Riviere received his B.S. (summa cum laude) and M.S. degrees from Boston College and his D.V.M. and Ph.D. in pharmacology from Purdue University.

Gary R. Acuff¹ is a Professor of food microbiology and the Head of the Department of Animal Science at Texas A&M University. He is also a member of the faculty of Food Science and the Graduate Faculty. Professional memberships include the American Society for Microbiology, the Society for Applied Microbiology and the International Association for Food Protection (IAFP). He serves on several advising and planning committees for the above professional organizations, and served as President of IAFP in 2007-2008. He was a member of the Editorial Committee for the 4th Edition of the Compendium of Methods for the Microbiological Examination of Foods, published in 2001, and served as a member of the USDA National Advisory Committee on Microbiological Criteria for Food from 1992 to 1997. He received his BS in Biology from Abilene Christian University and his MS and PhD in Food Science and Technology from Texas A&M University.

¹ Member of the Committee on Use of Process Indicators for Ranking Processing and Slaughtering Establishments in FSIS Public Health Risk-based Inspection System

John C. Bailar III (IOM)² is professor emeritus in the Department of Health Studies at the University of Chicago and scholar-in-residence at the National Academies. He is a retired commissioned officer of the U.S. Public Health Service and worked for the National Cancer Institute for 22 years. He has also held academic appointments at Harvard University and McGill University. Dr. Bailar's research interests include assessing health risks posed by chemical hazards and air pollutants and interpreting statistical evidence in medicine with emphasis on cancer. He was editor-in-chief of the Journal of the National Cancer Institute for 6 years and statistical consultant and member of the Editorial Board of the New England Journal of Medicine. Dr. Bailar is a member of the International Statistical Institute and was elected to the Institute of Medicine in 1993. He served as chair of several of the National Research Council Committees including Ensuring Safe Food: From Production to Consumption, Estimating the Health-risk-Reduction Benefits of Proposed Air Pollution Regulations, and Estimating Mortality Risk Reduction and Economic Benefits from Controlling Ozone Air Pollution. He received his MD from Yale University and his PhD in statistics from American University.

LeAnn Chuboff³ is Director of Science and Regulatory relations for the National Restaurant Association Solutions (NRAS) and an active member of the International Association for Food Protection's Food Law Professional Development Group. NRAS educates the food service industry about food safety standards and product quality. Chuboff is a former auditor, having worked for several years for a consulting firm that provided audit services for Boston Market and other food service and food manufacturing companies. She also has experience at Long John Silver's, where she served as an auditor for the company's non-seafood division. Chuboff received a B.S. in consumer food science from Iowa State University.

Michael P. Doyle (IOM),¹ is Regents Professor of Food Microbiology and Director of the University of Georgia Center for Food Safety. Previously, he was Distinguished Professor of Food Microbiology and Toxicology at the University of Wisconsin. Dr. Doyle's research program promotes collaboration among the food industry, the university and federal and state agencies. His research focuses on developing methods to detect and control foodborne bacterial pathogens at all levels of the food continuum, from the farm to the table. He is internationally acknowledged as a leading authority on foodborne pathogens, especially *Escherichia coli* O157:H7, and consults widely on the topic. His National Academies service includes chairmanship of the Committee on the Review of the USDA *Escherichia coli* O157:H7 Farm-to-Table Process Risk Assessment and participation in the 2004 and 2007 US-Iranian Workshop on Food Safety, the National Research Council (NRC) Committee on National Needs for Research in Veterinary Science, and the Institute of Medicine (IOM)/NRC Committee to Ensure Safe Food from Production to Consumption. Dr. Doyle is a graduate of the University of Wisconsin-Madison where he received his BS degree in Bacteriology, and MS and PhD degrees in Food Microbiology. He currently is vice chair of the Food and Nutrition Board (FNB) and chairs the FNB Food Forum. He was elected to the IOM in 2003.

William DuMouchel³ is Chief Statistical Scientist at the Lincoln Safety Group of Phase Forward Inc., a software company located in Waltham, Massachusetts, where he is continuing the development of innovative statistical pharmaco-vigilance methods. His most recent academic

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³ Member of the Committee on Review of the Methodology Proposed by the Food Safety and Inspection Service (FSIS) for Risk-based Regulation of In-Commerce Activities

appointment was as Professor of Biostatistics and Medical Informatics at Columbia University from 1994 to 1996. Before that he held faculty positions at MIT, University of Michigan, and University of California, Berkeley. From 1996 to 2004 he conducted research on data mining at AT&T Labs. Dr. DuMouchel has published approximately one hundred papers on methods and applications of statistics, data mining, and Bayesian techniques. He has been elected a fellow of both the American Statistical Association and the Institute of Mathematical Statistics and elected a member of the International Statistical Institute. He has also served as an advisor to numerous Federal agencies and panels, including membership in the Institute of Medicine Committee on Postmarket Surveillance of Pediatric Devices, the Committee on Technical and Privacy Dimensions of Information for Terrorism Prevention and Other National Goals, and the National Committee on Statistics of the National Research Council. Dr. DuMouchel's Bayesian statistical methodology for detecting and measuring associations in transactional databases has been applied to adverse drug reaction databases by many researchers at the U.S. FDA, the U.K. MHRA and many pharmaceutical enterprises. DuMouchel received a B.S. in mathematics from the University of Detroit and M.S., M.Phil., and Ph.D. degrees in statistics from Yale University.

Sandra Eskin is the Deputy Director for Policy and Research, at the Produce Safety Project (PSP), and initiative of the Pew Charitable Trusts at Georgetown University. Ms. Eskin has spent nearly twenty years as a legal and public-policy consultant to numerous consumer and public-interest organizations, providing strategic and policy advice on a broad range of consumer-protection issues, in particular food and drug safety, labeling, and advertising. She served as a member of the U.S. Department of Agriculture's National Advisory Committee on Meat and Poultry Inspection from 2000-2006 and participated on the Congressionally-mandated Steering Committee for the Development of Useful Prescription Medicine Information. Ms. Eskin previously worked as a staff attorney at a government agency and as a legislative representative for the Consumer Federation of America. She has written numerous reports and articles on food-safety topics. Ms. Eskin received her J.D. from the University of California, Hastings College of the Law, and her B.A. from Brown University. She is a senior scholar with the O'Neil Institute for National and Global Health Law at Georgetown University.

Margaret D. Hardin² is an associate professor of food microbiology in the Department of Animal Science at Texas A&M University. She conducts a research program in food microbiology that includes research on product safety, security and quality encompassing deterioration, spoilage and public health hazards caused by bacterial growth and survival in foods of animal origin. Previously, Dr. Hardin was employed in the meat industry as Director of Food Safety with Sara Lee Foods, Director of Food Safety with Smithfield, and as Director of Food Safety and Quality Assurance with Boar's Head Brand. She also worked as Director of Pork Safety with the National Pork Producer's Council and as a Research scientist and HACCP instructor with the National Food Processors Association. Dr. Hardin's professional memberships include the American Society for Microbiology, the International Association for Food Protection, the Institute for Food Science, the Society for Applied Microbiology and the American Meat Science Association. She is a member of the Editorial Board for the International Journal of Food Microbiology and on the Editorial Advisory Board for Food Safety Magazine. Dr. Hardin has served as a member of both the National Advisory Committee on Microbiological Criteria for Food and the National Advisory Committee for Meat and Poultry Inspection. She received her PhD in food microbiology from Texas A&M University.

Craig Hedberg² is a professor of environmental and occupational health at the University of Minnesota, School of Public Health. His research focuses on foodborne disease surveillance, surveillance of environmental factors associated with foodborne disease, the role of food workers in the occurrence of foodborne diseases, use of epidemiologic methods in outbreak investigations and disease control, and environmental contamination with enteric pathogens. He previously served as supervisor of the Foodborne, Vectorborne, and Zoonotic Disease Unit at the Minnesota Department of Health. Dr. Hedberg served on the NRC Subcommittee II on Produce and Related Products, Seafood, and Dairy Products. He received his PhD in epidemiology from the University of Minnesota.

Lee-Ann Jaykus² is a professor in the Departments of Food Science and Microbiology at North Carolina State University. Her current research efforts focus on the development of molecular methods to detect human enteric viruses in foods and investigate foodborne viral disease outbreaks using a molecular epidemiologic approach. Additional research efforts include evaluation of nucleic acid amplification techniques for the detection of bacterial pathogens (*Salmonella*, *Listeria monocytogenes*, and *E. coli* O157:H7) in a variety of food products and in the application of quantitative microbial risk assessment in the evaluation of foodborne microbiological hazards. Dr. Jaykus also has collaborated in large, multi-institutional projects to investigate the prevalence of pathogens and their association with production and processing practices in fresh produce, poultry and shellfish. Her professional memberships include the International Association for Food Protection (IAFP; currently serving as vice president), the American Society for Microbiology, the Institute of Food Technology, and the Society for Risk Analysis. Dr. Jaykus is also a member of the National Advisory Committee on Microbiological Criteria for Food (NACMCF). She earned a PhD in environmental science and engineering from the University of North Carolina at Chapel Hill.

Barbara Kowalczyk became interested in foodborne illness prevention in 2001 following the death of her 2 and a half year old son, Kevin, from complications due to an *E. coli* O157:H7 infection. Ms. Kowalczyk has volunteered extensively as a consumer advocate for food safety and cofounded the Center for Foodborne Illness Research & Prevention in 2006. In addition, Ms. Kowalczyk has served on USDA's National Advisory Committee on Microbiological Criteria for Foods (NACMCF) since 2005 and serves on the Advisory Board for Georgetown University's Health Policy Institute's Produce Safety Project. Ms. Kowalczyk has given numerous presentations on food safety and has

testified before The National Academy of Sciences. In addition to her extensive experience in food safety advocacy, Ms. Kowalcyk has over 10 years experience as a biostatistician conducting clinical research in the pharmaceutical industry. Ms. Kowalcyk earned her undergraduate degree in Mathematics from the University of Dayton and her Master's in Applied Statistics from The University of Pittsburgh. Ms. Kowalcyk is currently pursuing a Doctorate in Environmental Health with a focus in Epidemiology/Biostatistics at the University of Cincinnati and is a fellow in the Molecular Epidemiology in Children's Environmental Health Training Program. She resides in Maineville, Ohio with her husband and three surviving children.

Jeffrey LeJeune² is an associate professor in the Department of Veterinary Preventive Medicine in the food animal health research program at Ohio State University. His research involves pre-harvest control of human foodborne pathogens, control of antimicrobial resistant bacteria in the animal host and the environment, and the effects of diet composition on the magnitude and prevalence of *E. coli* O157 in cattle. Dr. LeJeune has also investigated practical, on-farm methods to reduce bacterial contamination of livestock drinking water. He has served as an expert consultant to the joint Food and Agriculture Organization and World Health Organization (FAO/WHO) on control of microbiological contamination of leafy greens. Dr. LeJeune also has served as an expert consultant to International Water Management Institute on water re-use in agriculture and public health. Dr. LeJeune received his DVM from University of Prince Edward Island in Canada, his PhD in veterinary microbiology from Washington State University, and did post-doctoral work in epidemiology.

John J. Maurer,¹ is a Professor in the Department of Population Health and the Poultry Diagnostics and Research Center, and a member of the Center of Food Safety at the University of Georgia. He is a member of American Association of Avian Pathologists and American Society for Microbiology. He was the president of Southeastern Branch of American Society for Microbiology. He was the recipient of Pfizer Award for Research Excellence and John Bowen Award for Excellence in Research. His research interests include development, validation and implementation of molecular tools into on-farm surveillance program for foodborne pathogens, molecular epidemiology and population genetics of veterinary and zoonotic pathogens, and ecology of antibiotic resistance and foodborne pathogens in the food production environment. Dr. Maurer has a BS in Microbiology from Purdue University and a PhD in microbiology from University of Texas Health Science Center at San Antonio.

Jianhong Meng² is a professor in the Department of Nutrition and Food Science at the University of Maryland and interim director of the Joint Institute for Food Safety & Applied Nutrition (JIFSAN) with the FDA. Dr. Meng is interested in molecular identification, antimicrobial resistance, and pathogenicity of major foodborne pathogens, including Shiga toxin-producing *E. coli*, *Campylobacter*, *Salmonella*, and *Listeria monocytogenes*. Dr. Meng is an appointed member of the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) of the USDA, and is on the editorial board for *Applied and Environmental Microbiology*. He received his DVM from Sichuan Agricultural University, China and his PhD in comparative pathology from the University of California at Davis.

Sanford A. Miller¹ is a Senior Fellow at the Joint Institute for Food Safety and Applied Nutrition at the University of Maryland, College Park. He was named Professor and Dean Emeritus of the Graduate School of Biomedical Sciences at the University of Texas Health Science Center at San Antonio in December 2000 where he was the Dean of the Graduate School of Biomedical Sciences

and Professor in the Departments of Biochemistry and Medicine from 1987-2000. He is the former Director of the Center for Food Safety and Applied Nutrition at the Food and Drug Administration. Previously, he was a Professor of Nutritional Biochemistry at the Massachusetts Institute of Technology. Dr. Miller has served on many national and international government and professional society advisory committees, including as chair of the Joint FAO/WHO Expert Consultation on the Application of Risk Analysis to Food Standards Issues. Honors include: Conrad A. Elvehjem Award of the American Institute of Nutrition, Babcock-Hart Award of the Institute of Food Technology, Esther Peterson Consumer Service Award from the Food Marketing Institute, Sterling B. Hendricks Award from the U.S. Department of Agriculture, and election to Fellow of the American Society for Nutrition. In June 2000, he was the recipient of the Food and Drug Administration's Distinguished Alumni Award. He has been a member of many National Academy of Sciences committees, including the Food and Nutrition Board's Standing Committee on the Scientific Evaluation of Dietary Reference Intakes and Subcommittee on Upper Reference Levels of Nutrients and Panel on Macronutrients. He was named a National Associate of the National Academies in 2002. He is author or co-author of more than 200 original scientific publications. Dr. Miller received a BS in Chemistry from the City College of New York, and an MS and a PhD from Rutgers University in Physiology and Biochemistry.

Greg Paoli is a co-founder and principal risk scientist at Risk Sciences International based in Ottawa, Canada. He has experience in the development and application of risk analysis methods in diverse risk domains including microbiologic, toxic and nutritional hazards, climate-change adaptation, air quality, drinking water, engineering devices, risk-based sampling and inspection, and a number of comparative risk assessment applications. Mr. Paoli has served on several international expert panels including Expert Consultations as part of the Joint Food and Agriculture Organization and World Health Organization (FAO/WHO) Activities on Microbial Risk Assessment. Within Canada, Mr. Paoli has served on Expert Committees of the National Roundtable on the Environment and the Economy and is a member of Health Canada's Expert Advisory Committee on Antimicrobial Resistance Risk Assessment. In the United States, Mr. Paoli served for several years on an expert panel to develop a Risk Ranking Framework for the U.S. FDA and was on the Peer Review Panel for the Harvard BSE Risk Assessment. He also has served on an IOM Committee to Review the USDA *E. coli* 0157:H7 Farm-to-Table Process Risk Assessment. Mr. Paoli is currently a member of an NRC committee on Improving Risk Analysis Approaches Used by the U.S. Environmental Protection Agency. He is a member of the editorial board of *Risk Analysis* and served as a councilor of the Society for Risk Analysis. Mr. Paoli earned an M.S. in Systems Design Engineering from the University of Waterloo.

Craig A. Reed¹ is a Visiting Professor of Large Animal Clinical Sciences at VA-MD Regional College of Veterinary Medicine and the Director of the Food, Nutrition and Health Institute at Virginia Tech. He also serves as Vice Chair of the Virginia Board of Health. He has worked with the U.S. Department of Agriculture where he crafted policy and delivered food safety programs involving meat, poultry and egg products, fruits and vegetables. He served as the Administrator of the Animal and Plant Health Inspection Service and Associate Administrator of the Food Safety and Inspection Service. He has designed and implemented programs such as HACCP in meat, poultry and egg products, and the Pesticide Data Program in fruits and vegetables. Dr. Reed received his BS and Doctor of Veterinary Medicine degrees from Michigan State University.

Steven C. Ricke¹ is a Professor in the Departments of Food Science and Poultry Science at the University of Arkansas. He also serves as the Donald "Buddy" Wray Chair in Food Safety and the director of Center for Food Safety in the Institute of Food Science and Engineering. Dr. Ricke is a member of the American Association for the Advancement of Science, American Chemical Society, American Society for Microbiology, International Association of Milk, Food and Environmental Sanitarians, Poultry Science Association, and Society for Industrial Microbiology. His research interests include: Food Safety, Salmonella pathogenesis, genetics, and physiology, food fermentations and gastrointestinal microbiology. Dr. Ricke received his BS and MS degrees from the University of Illinois Urbana Champaign and his PhD from the University of Wisconsin.

William H. Ross² is a bureau director within the Food Directorate, Health Products and Foods branch of Health Canada. Dr. Ross oversees four programs related to food safety regulatory, statistical, and epidemiologic analysis: Food Regulatory Program, Outreach and Engagement, Food Policy and Issues Management, and Biostatistics and Epidemiology. These programs focus on national and international regulatory policies concerning food safety, nutrition, decision analysis, and risk modeling. Dr. Ross has also served as bureau director of Biostatistics and Computer Applications within the Food Directorate as well as director of the Risk Management Framework at Health Canada. Dr. Ross has published extensively and given many invited presentations on toxicity and growth models for foodborne pathogens, including *Listeria*, *Clostridium*, *Enterococcus*, and *Escherichia coli*; quantitative risk analysis and decision-making, and food attribution. Dr. Ross received his PhD in mathematics from Queens University in Ontario, Canada.

Juliana M. Ruzante,¹ DVM, MPVM, PhD, is the Risk Analysis Manager for the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), in College Park, MD. She worked for the University of Guelph and Public Health Agency of Canada developing and operationalizing a multi-factorial framework to rank foodborne risks using multi-criteria decision analysis (MCDA) and at the Western Institute for Food Safety and Security developing training material on animal health and food safety. She also worked as a Quality Assurance Specialist for one of the largest pork and poultry processing companies in Brazil. She was a member of the Food Safety Research Consortium and has served as an expert on the meeting organized by Food Agriculture Organization and World Health Organization on the risks associated with *Enterobacter sakazakii* in follow-up formula. Dr. Ruzante received her Doctor of Veterinary Medicine from University of São Paulo and Master in Preventive Veterinary Medicine (MPVM) and PhD in Comparative Pathology from the University of California, Davis.

Donald Schaffner² is professor in food science at Rutgers, the State University of New Jersey. His research is on quantitative microbial risk assessment and predictive food microbiology including mathematical models for the growth of *Clostridium* spp. in meat products under changing temperatures and risk modeling techniques to better understand and manage the risk posed by deliberate contamination of the food supply. Dr. Schaffner has served on expert committees for the WHO, and the Food and Agriculture Organization (FAO) of the United Nations, and has chaired two expert workshops on microbial risk for WHO/FAO. He is currently serving a 5 year term as editor for the journal Applied and Environmental Microbiology. He is also a member of the National Advisory Committee on Microbial Criteria for Foods (NACMCF). Dr. Schaffner has also served on the NRC Committee on Review of the Use of Scientific Criteria and Performance Standards for Safe Food. He received his PhD in food science and technology from the University of Georgia.

John Sofos³ holds the title of University Distinguished Professor and is Director of the Center for Meat Safety and Quality and Leader of the Food Safety Cluster of the Colorado State University Infectious Diseases SuperCluster. Dr Sofos also serves as scientific advisor to the Denver District Laboratory of the Food and Drug Administration and as a Scientific Editor of the Journal of Food Protection. His current research interests relate to sources, ecology, and extent of bacterial pathogen contamination of foods; procedures to reduce contamination and to inactivate or inhibit bacterial pathogens; stress adaptation of pathogenic bacteria; resistance of microorganisms to preservation procedures; and methods of sampling and detection of bacteria in foods. He has served on numerous national and international committees, task forces, and food safety advisory boards including the U.S. National Advisory Committee on Microbiological Criteria for Foods; the NRC-IOM Committee on the Review of the USDA *Escherichia coli* O157:H7 Farm to Table Process Risk Assessment; as Chair of a Task Force on Natural Antimicrobials for the Council for Agricultural Science and Technology; and as a reviewer of the World Health Organization (WHO) *Salmonella* in Poultry Risk Assessment. He has received Distinguished Research Awards from the American Meat Science Association and the American Society of Animal Science. In 2001, he received a Certificate of Appreciation from the Cooperative State Research, Education, and Extension Service of the USDA and the USDA Secretary's Honor Award for Superior Service. Sofos received his B.S. degree in agriculture from the Aristotle University of Thessaloniki, Greece and M.S. in animal science and Ph.D. in food science from the University of Minnesota.

William Sperber³ serves as Global Ambassador for Food Protection on a post-retirement basis for Cargill. During his employment with major food companies he became one of the world's experts in designing and controlling the microbiological safety and quality of foods. Hired in 1972 to conduct the first hazard analyses for consumer food products in Pillsbury's novel HACCP system, Dr. Sperber led Pillsbury's microbiology and food safety programs until he joined Cargill in 1995. A former chair of the IFT Division of Food Microbiology and the Food Microbiology Research Conference, he was appointed five times by the U.S. Secretary of Agriculture to the National Advisory Committee on Microbiological Criteria for Foods. He was also appointed in 2000 to the FAO/WHO roster of experts for microbiological risk assessments. In 2001, the International Association for Food Protection presented Dr. Sperber with the Harold Barnum Industry Award and, in 2002, the American Meat Institute Foundation presented him with its inaugural Scientific Achievement Award. Sperber received his B.S in zoology and chemistry and his M.S. and Ph.D. in microbiology from the University of Wisconsin at Madison.

Katherine Swanson³ is Vice President of Food Safety at Ecolab in St. Paul, Minnesota, a provider of commercial cleaning and sanitizing solutions for food processors, foodservice, healthcare, and hospitality providers worldwide. She has over 25 years of food safety and quality experience. In her current position, she provides internal and external leadership by identifying emerging food safety trends and new control strategies. As director of microbiology and food safety for the Pillsbury Company, Swanson developed and implemented Hazard Analysis Critical Control Point (HACCP) and food allergen training and programs for research and development and operations, managed development of electronic specification systems, oversaw food quality system audits, and developed corporate product quality management systems. Swanson received a B.S. in dietetics from the University of Delaware and an M.S. and Ph.D. in food science from the University of Minnesota.

Robert Tauxe¹ is Deputy Director of the Division of Foodborne, Bacterial and Mycotic Diseases at the U.S. Centers for Disease Control and Prevention (CDC). His division is charged with prevention and control of foodborne, and zoonotic bacterial infections and mycotic diseases. His faculty appointments include the Department of Global Health and the Department of Biology, both at Emory University. Dr. Tauxe's interests include bacterial enteric diseases, epidemiology and pathogenesis of infectious diseases, epidemiologic and clinical consequences of bacterial genetic exchange, antimicrobial use and resistance to antimicrobial agents, and teaching epidemiologic methods. Dr. Tauxe's memberships include the American Epidemiology Society, the American Society for Microbiology, and the American Academy of Microbiology; he is a Fellow of the Infectious Diseases Society of America. Dr. Tauxe has served internationally in Belgium, Mali, Rwanda, Peru and Guatemala and has supervised numerous overseas epidemiologic investigations. Dr. Tauxe has authored/co-authored 242 journal articles, letters and book chapters. Dr. Tauxe received his BS from Yale University, his MD from Vanderbilt Medical School, and his MPH from Yale University.

Ewen C. D. Todd,³ Professor, Advertising, Public Relations and Retailing, Michigan State University. In this role he conducts research with faculty in different disciplines for understanding consumer food safety preferences, better food recall strategies, improved hygiene in child care centers, labeling and communication issues, risk assessment and management, and organizing conferences on harmonization of *Listeria* regulations and discussing issues surrounding consumption of raw milk and raw milk cheese. He has established international linkages in Spain, China, Korea, Uganda, Lebanon and Dubai. Ewen Todd has also served as the Director of the Food Safety Policy Center and the National Food Safety and Toxicology Center both at Michigan State University. He is also Adjunct Professor in the Department of Food Science and Human Nutrition. In these positions, Dr. Todd directed policy initiatives in food safety, and coordinated research in microbiology, toxicology, epidemiology, risk assessment, and social science in the area of food safety, distance education programs, and outreach in the community. He was formerly in the Bureau of Microbial Hazards, Health Products and Food Branch, Health Canada, Ottawa, where he was a research scientist for 33 years working on methods development for pathogens in foods, foodborne disease investigation and reporting, costs and surveillance of disease, illnesses caused by seafood toxins, and risk assessment of foodborne pathogens such as *E. coli* O157 in hamburgers, *Salmonella* Enteritidis in eggs, *E. coli* O157:H7 in lettuce, *L. monocytogenes* in cabbage, and *Vibrio vulnificus* in oysters. He served on the FAO/WHO expert consultation for producing a risk assessment for *L. monocytogenes* in ready-to-eat foods. He is a recipient of the Government of Canada Distinctive Service Award for extraordinary teamwork and support to the Science and Technology Community; the Excellence in Science Award for 1998 by Health Canada; the Deputy Minister's Award of Team Excellence; and the Professional Institute of the Public Service of Canada Gold Medal for Pure and Applied Science. He is also a Fellow of the International Association for Food Protection, and a University Outreach and Engagement Senior Fellow at Michigan State University. Todd received his B.Sc. in bacteriology and his Ph.D in bacterial systematics from Glasgow University, Scotland.

Martin Wiedmann² is an associate professor of food science at Cornell University. His current research focuses on molecular pathogenesis and evolution of bacterial and foodborne diseases, the role of alternative sigma factors in bacterial pathogens, molecular epidemiology of human foodborne and animal diseases, detection of bacterial and viral pathogens by molecular biology, pre-harvest food safety, and *Listeria monocytogenes*. Dr. Wiedmann also serves as co-coordinator of the Cornell Food and Water Safety Program, and he participates in the Infection and Pathobiology Program and in the Cornell Genomics Initiative. He is also the director of the Cornell Laboratory of Molecular Typing. Dr. Wiedmann serves on the editorial board for several journals including the *Journal of Food Protection*, *Applied and Environmental Microbiology*, and *Foodborne Pathogens and Disease*. He is also a member of the American Dairy Science Association, American Veterinary Medicine Association, and the American Association for the Advancement of Science. He has served as consultant and expert witness on a variety of food safety issues, including *Listeria monocytogenes* contamination and ecology in food processing plants, link between *Listeria monocytogenes* recall and foodborne illness cases, the link between *E. coli* O157:H7 cases and food recalls, and food and water safety issues on fairgrounds. He received his PhD in food science from Cornell University as well as his PhD and DVM in veterinary medicine from the University of Munich, Germany.

Richard Williams³ is the Managing Director of the Regulatory Studies Program and the Government Accountability Project at the Mercatus Center of George Mason University. Prior to joining the Mercatus Center, he served as the Director for Social Sciences at the Center for Food Safety and Applied Nutrition in the Food and Drug Administration for 27 years. He also served as an advisor to the Harvard Center for Risk Analysis and taught economics at Washington and Lee University. Dr. Williams is an expert in benefit-cost analysis and risk analysis, particularly associated with food safety and nutrition. He has published in *Risk Analysis* and the *Journal of Policy Analysis and Management* and has addressed numerous international governments, including those in the United Kingdom, South Korea, Yugoslavia, and Australia. Williams received his B.S. in business administration from Old Dominion University in Norfolk, Virginia and his M.A. and Ph.D. in economics from Virginia Polytechnic Institute and State University in Blacksburg, Virginia.