

CURRICULUM VITAE
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Education:

1981 Ph.D. (Biostatistics), University of North Carolina, Chapel Hill
1979 M.S. (Biostatistics), University of North Carolina, Chapel Hill
1977 B.S. (Mathematics), summa cum laude, Nicholls State University

Employment:

2006 - present **Associate Director, National Institute of Environmental Health Sciences,**
Research Triangle Park, North Carolina.

2006 - present **Director, Office of Risk Assessment Research,** National Institute of Environmental
Health Sciences, Research Triangle Park, North Carolina.

1993 – present **Head, Environmental Systems Biology** (originally Stochastic Modeling),
Laboratory of Molecular Toxicology, National Institute of Environmental Health
Sciences, Research Triangle Park, North Carolina.

2000 - 2006 **Associate Director, National Toxicology Program,** National Institute of
Environmental Health Sciences, Division of Intramural Research, Research Triangle
Park, North Carolina.

2000 - 2006 **Director, Environmental Toxicology Program,** National Institute of Environmental
Health Sciences, Division of Intramural Research, Research Triangle Park, North
Carolina.

1993 - 2005 **Chief, Laboratory of Computational Biology and Risk Analysis** (originally the
Laboratory of Quantitative and Computational Biology), National Institute of
Environmental Health Sciences, Division of Intramural Research, Research Triangle
Park, North Carolina.

1996 - 2000 Associate Director for Risk Assessment, Environmental Toxicology Program
National Institute of Environmental Health Sciences, Division of Intramural
Research, Research Triangle Park, North Carolina.

1990 - 1993 Head, Risk Methodology Section, National Institute of Environmental Health
Sciences, Division of Biometry and Risk Assessment, Research Triangle Park, North
Carolina.

1987, 1992, 1990 Guest Scientist, German Cancer Research Center, Heidelberg, Germany.

1978 - 1990 Mathematical Statistician, National Institute of Environmental Health Sciences,
Division of Biometry and Risk Assessment, Research Triangle Park, North Carolina.

1977 Mathematician, Computer Sciences Division, Oak Ridge National Laboratory, Oak
Ridge, Tennessee.

1976 Undergraduate Research Trainee, Neutron Physics Division, Oak Ridge National
Laboratory, Oak Ridge, Tennessee.

University Affiliations:

- 1986 - present Adjunct Professor of Biostatistics, University of North Carolina, School of Public Health, Chapel Hill, North Carolina.
- 1990-1992 Adjunct Professor of Statistics, University of Waterloo, Waterloo, Ontario, Canada

Honors & Awards:

- First recipient of the James E. Grizzle Distinguished Alumnus Award, The Department of Biostatistics, The University of North Carolina, 1991.
- Elected Foreign Correspondent, Russian National Academy of Natural Sciences, 1992.
- Elected Fellow, American Statistical Association, 1992.
- Best-applied statistics paper, Centers for Disease Control, 1993.
- Spiegelman Award presented by the American Public Health Association to the most outstanding public health statistician under the age of 40, 1995.
- Distinguished Achievement Award, Section on Statistics and the Environment, American Statistical Association, 1995.
- Board of Publications, Best Paper Award, Society of Toxicology, 1995.
- Merit Award, National Institute of Health, 1998.
- Commendation for Sustained High Quality Work Performance, National Institute of Environmental Health Sciences, numerous dates.
- Outstanding Performance Award, National Institute of Environmental Health Sciences, numerous dates.
- Elected Fellow, International Statistical Institute, 2000.
- Outstanding Risk Practitioner Award, International Society for Risk Analysis, 2000.
- Society of Toxicology, Risk Assessment Specialty Section, Paper of the Year, 2005
- Society of Toxicology, Risk Assessment Specialty Section, Paper of the Year, 2006
- Fellow, World Innovation Foundation, 2006

Professional Societies Membership:

International Biometrics Society, Bioelectromagnetics Society, International Environmetrics Society, Society of Toxicology, American Public Health Association, International Statistics Institute

Editorial Activities:

- Associate Editor - Environmental Health Perspectives (1987-2006)
- Associate Editor - Risk Analysis: An International Journal (1989-2003)
- Editorial Board – Environmental and Ecological Statistics (since 2004)
- Associate Editor – Statistics in Medicine (1998-2002)
- Associate Editor - Biometrics (1997-99)
- Editorial Board Member/Reviewer (different dates): Biometrika, Cancer Research, Communications in Statistics, Fundamental and Applied Toxicology, Journal of Applied Toxicology, Journal of the American Statistical Association, Journal of Toxicology and Environmental Health, Science, Mathematical Biosciences, Journal of Mathematical Biology, Carcinogenesis, Science, PNAS, Toxicological Sciences

Advisory & Review Committees:

2005 .	Chair, International Agency for Research on Cancer, Scientific Advisory Board on the Preamble to the Cancer Monograph Series
2005 – present	Chair, Subcommittee on Toxics and Risk, President’s National Council on Science and Technology
2005 .	Chair, World Health Organization Expert Panel on Health Criteria Document for Extremely Low Frequency Electric and Magnetic Fields
2003 – 2005	Co-Chair, Subcommittee on Health and Environment, President’s National Council on Science and Technology
2003	Ad-Hoc member, EPA Science Advisory Board, Review of Children’s Cancer Risk Assessment Supplement to Cancer Guidelines
2002 – 2006	Co-Chair, Subcommittee on Mercury, President’s National Council on Science and Technology
2000 – present	Member, Finish Academy of Sciences Centers of Excellence Program Science Advisory Committee
2000	Reviewer, <i>Congressional Research Service, Library of Congress</i> ; Research needs relevant to children’s environmental health risks.
1998 - 2004	Permanent member, <i>Environmental Protection Agency, FIFRA Science Advisory Panel.</i>
1997 - present	Member, National Occupational Research Agenda Team, <i>National Institute of Occupational Safety and Health.</i>
1997 - present	Advisor, <i>World Health Organization, International Program on Chemical Safety, EMF Project.</i>
1995 - 2000	Advisor, <i>Australian Health Council, Risk Assessment Methodology, Member NHMRC Steering Committee on Cancer Risk Assessment Guidelines.</i>
1992 - 2000	Member, <i>EPA Dioxin Reassessment Working Group.</i>
1985 - 2007	Thesis director for graduate students, Department of Biostatistics, <i>University of North Carolina - Chapel Hill, North Carolina.</i>
1997	Advisor, <i>Netherlands National Health Council, Risk Assessment Methodology.</i>
1997	Reviewer, <i>Air Force Office of Scientific Research.</i>
1996 - 1997	Temporary Advisor, <i>World Health Organization, Expert Committee on Food Additives.</i>
1996	Advisor, <i>Environmental Protection Agency; Evaluation of the benchmark dose methodology.</i>
1996	Advisor, <i>Environmental Protection Agency; Evaluation of risks from exposure to PCB’s.</i>
1996	Expert Review Committee, <i>Environmental Protection Agency; Cancer dose-response for PCB’s.</i>
1995 - 1996	Member, <i>California Environmental Protection Agency, Risk Assessment Advisory Committee.</i>
1994 - 1997	Science Advisory Panel, <i>Public Broadcasting System Production “Poisons in the Womb”.</i>
1991 - 1995	Ad-Hoc Member, <i>Environmental Protection Agency, Science Advisory Panel.</i>

NIH/NIEHS Service Activities:

- Primary focus, all interagency activities on hazards and risk (2006 to present)

- Co-Organizer, NIEHS/EPA Workshop on Children's Environmental Health, RTP, NC, January, (2007)
- Co-Organizer, NIEHS/NTP Workshop on the Identification of Targets for the HTS Roadmap Project (2007)
- Coordinator, NIEHS/EPA Review of the Children's Environmental Health Centers Program (2006-2007)
- Organizing Committee, Global Environmental Health Initiative, NIEHS (2006 to present)
- NIEHS Leadership Council (2005 to present)
- Organizer, formal collaborative agreements between NTP and Ramazzini Foundation (2001 to present)
- Organizer, formal collaborative agreements between NTP and Korean NTP (2002 to present)
- NIEHS Title 42 Review Committee (2003 to 2004)
- NIEHS Executive Committee and Operations Update Committee (2000 to 2005)
- NIEHS Leadership Retreats, DERT Retreats, DIR Retreats (all years since 1997)
- Presenter, NIEHS-sponsored National Academy of Sciences Committee on Emerging Issues in Environmental Health, November, 2001
- Organizer and presenter, National Toxicology Program Executive Committee Meetings (multiple dates since 2000)
- Organizer and presenter, National Toxicology Program Board of Scientific Counselors (multiple dates since 1998)
- Organizer, Joint NIEHS/US Geological Survey Interagency Program on Exposure Assessment, April 2001 to present)
- Organizer, US-Vietnam Scientific Conference on the Health and Environmental Effects of Agent Orange/Dioxin in Vietnam, March, 2002
- Organizing Committee, National Toxicology Program/EPA/FDA Scientific Conference on the Allergenicity of Genetically Modified Food, November, 2001
- NIEHS Town Hall Meeting, Los Angeles California, November, 2001
- NTP Research Directions, NAEHSC, Research Triangle Park, NC. May, 2001.
- NCI Study Section Center Presite Meeting, Seattle, Washington, January, 2001.
- Program committee member, *NIEHS/Colorado State University* conference on the Application of Technology to Chemical Mixture Research, 2001.
- Coordinating Core Committee, National Center for Toxicogenomics, NIEHS, 2000 to present
- Organizer, Joint US-Vietnam Consultation on Research on Agent Orange Health Effects in Vietnam. Singapore, 2000
- *ICCVAM/NICEATM*, Up-and-Down Procedure Peer Review Meeting, 2000.
- Chairman, *NIEHS* Risk Assessment Research Committee, 1995-present.
- Discussant, *NIEHS/PNNL* Workshop on Human Biology Models for Environmental Health Effects, 2000.
- Risk Assessment Coordinator, *NIEHS* US *RAPID* Program for the Evaluation of Health Risks from Exposure to Electric and Magnetic Fields, 1996-99.
- Organizer and Chair, Four Public Comment Sessions on the report of the *NIEHS/DOE* Working Group on the Health Effects of Exposure to Electric and Magnetic Fields, 1998.
- Organizer and Co-Chair, *NIEHS/DOE* Working Group on the Health Effects of Exposure to Electric and Magnetic Fields, 1998.
- Scientific Organizing Committee, *NIEHS* Workshop on Risk Assessment Issues Associated with Endocrine Disrupting Chemicals, 1998.

- Organizer, *NIEHS/DOE* Science Research Symposium on the Health Effects of Exposure to Electric and Magnetic Fields I: Biophysical Mechanisms and *In Vitro* Experimentation, 1998.
- Organizer, *NIEHS/DOE* Science Research Symposium on the Health Effects of Exposure to Electric and Magnetic Fields II: Epidemiological Findings, 1998.
- Organizer, *NIEHS/DOE* Science Research Symposium on the Health Effects of Exposure to Electric and Magnetic Fields III: *In Vitro* and Clinical Research Findings, 1998.
- Head, Toxicokinetics Faculty, *NIEHS*, 1994-97.
- Coordinator/Director, *NIEHS/ATSDR* Interagency Course on Mechanistic Modeling in Environmental Risk Assessment, 1996.
- Organizer, *NIEHS/EPA* Workshop on Research Priorities for New Risk Assessment Guidelines, 1996.
- Co-Organizer, *National Institute of Statistical Sciences, NIEHS/EPA* Workshop on Mechanistic Modeling in Risk Assessment, 1995.
- Scientific Coordinator and Mission Director, *NIEHS* “Mission to Vietnam” to assess the potential for scientific collaboration on the impact of Agent Orange on the Vietnamese Population, 1995.
- Chairman, *NIEHS* Computer Science Focus Group, 1995.
- Discussant, National Toxicology Program Workshop on Mechanistic Modeling in Toxicology, *NIEHS*, 1995.
- Discussant, National Toxicology Program Workshop on Mechanisms of Carcinogenesis, *NIEHS*, 1995.
- Co-Organizer, International Conference on The Role of Cell Proliferation in Carcinogenesis, co-sponsored by *NIEHS, The Chemical Industry Institute of Toxicology, The International Life Sciences Institute* and *The American Industrial Health Council*, 1992.
- Organizer and Director, Scientific Basis of Animal Carcinogenicity Testing, Moscow, Russia, co-sponsored by the *International Agency for Research on Cancer, NIEHS, Health and Welfare Canada* and *The All-Union Cancer Research Center*, 1991.
- Chairman, Computer Technology Advisory Forum, *NIEHS*, 1989.
- Organizer and Director, Design and Analysis of Long-Term Animal Carcinogenicity Experiments, Lyon, France, co-sponsored by the *International Agency for Research on Cancer* and the *NIEHS*, 1988.

Extramural Activities:

- Chair, WHO Extremely Low Frequency Magnetic and Electric Fields Workshop on Intervention Strategies, June, 2007
- Special Advisor to the Director, Program on Public Health and the Environment, WHO, Geneva, May-July, 2007
- Special Advisor to the Director, Program on Public Health and the Environment, WHO, Geneva, November, 2006-January, 2007
- Breakout Group Chair, International Workshop on Uncertainty and Variability in PBPK Modeling, RTP, NC USA, October, 2006
- Member, Health Effects Sciences Institute Committee on Sensitive Subpopulations and Groups, Washington, DC, 2006 to present
- Rapporteur, Steering Committee for developing the 100th Monograph of the International Agency for Research on Cancer, Lyon, France, September, 2006
- Co-Organizer, parallel workshops on the advancement of PBPK modeling in risk assessment, Research Triangle Park, November, 2006, Corfu, Greece, April, 2007.
- Organizer, Alternative Models in Developmental Neurotoxicity, Alexandria, Virginia, March, 2006.

- Organizer, NTP High Throughput Screening Workshop, Washington, DC, December, 2005
- Organizer, ISRTP Meeting on Alternative Methods in Toxicology, Baltimore, Maryland, November, 2005
- Organizer, NTP 25th Anniversary Meeting, Washington, DC, May, 2005
- Organizer, IPCS/WHO Workgroup on Dose-Response Modeling, Geneva, Switzerland, September, 2004
- Organizer, Consultation on harmonization of toxicological research between the NTP, Ramazzini Foundation and the European Union, European Congress of Toxicology, Florence, Italy, September, 2003.
- Member, WHO Workgroup on the epidemiology of cellular phone toxicity, Tsukuba, Japan, September, 2003.
- Program Committee, 12th International Conference on Global Warming, Boston, Massachusetts, May 2003
- Program Committee, International Conference on Cancer Risk Assessment, Athens, Greece, August, 2003
- Chair, WHO Public Consultation on Risk Communication, Luxembourg, February, 2003.
- Chair, WHO Committee on Establishing a Plan for Implementation of the Precautionary Principle in Risk Management. Luxembourg, February, 2003.
- Presenter (on behalf of US Government), National Academy of Sciences Panel on the Use of Third Party Toxicity Research with Human Research Participants, December, 2002
- Member, US Science Delegation, United Nations Environmental Program Consultation on Organic Mercury, September, 2002
- Science Panel Member, IARC Carcinogenicity Review of ELF-EMF, Lyon, France, June, 2001.
- Reviewer, Finish Ministry of Health Centers of Excellence Program, Helsinki, April, 2001.
- EPA dioxin reassessment peer review workshop and public comment session, Washington, DC, 2000.
- Organizer: Dioxin Dose-Response Working Group Meeting, Fort Collins, Colorado, February, 2000.
- Chair, Spiegelman Award Committee, *American Public Health Association*, 1998.
- Chair, *Bioelectromagnetics Society* Symposium on the use of Transgenic Animals in Evaluating Health Risks from Exposure to Cellular Phones, St. Petersburg, Florida, 1998.
- Member, *World Health Organization* International Program on Chemical Safety, Workshop on Issues in Cancer Risk Assessment, 1998.
- Advisor, *Joint Committee on Food Additives*, *World Health Organization/Food and Agriculture Organization*. Evaluation of certain food additives and contaminants
- Member, US Government Methylene Chloride Risk Characterization Science Committee, 1996-1998.
- Scientific Organizing Committee, *Colorado State University* Workshop on Biomedical Advances on Chemical Mixtures, 1997.
- *National Academy of Sciences*, Institute of Medicine, Committee on Funding Future Agent Orange Research in Vietnam, 1996.
- Discussant, Workshop on the role of Endocrine Disruptors in Human Health, 1995.
- Advisor to *Australian Health Council* on Risk Assessment Methodology, Member *NHMRC* Steering Committee on Cancer Risk Assessment Guidelines
- Participant, International Program on Chemical Safety of the *World Health Organization* Workshop on Chemical Risk Assessment, London, England, 1995.
- Participant, *IARC* Workshop on Receptor-Mediated Carcinogenesis, Lyon, France, 1994.
- Co-Organizer, Symposium on Quantitative Risk Assessment, *German Cancer Research Center*, Heidelberg, Germany, 1993.

- Participant, *IARC Monograph on Risk Assessment Methodology*, *International Agency for Research on Cancer*, Lyon, France, 1993.
- Thesis advisor for graduate student, *University of Waterloo*, Waterloo, Ontario, Canada. 1991-93.
- Co-Organizer, *Russian Academy of Sciences Informatics and Cybernetics Research Award*, 1992.
- Official Observer, *IARC Monograph on the Biological Effects of Ultraviolet Radiation*, *International Agency for Research on Cancer*, Lyon, France, 1992.
- Member, *International Life Sciences Institute*, Dose-Response Working Group, 1991.
- Participant in Banbury Conference on Human Health Risks from Exposures to Dioxins, Banbury Conference Center, Cold Spring Harbor, New York, 1990.
- Co-Chairman, Session on Biostatistical Developments in Cancer Research, *15th International Cancer Congress*, Hamburg, Germany, 1990.
- Participant in *Environmental Protection Agency Workshop on Risk Assessment Guidelines*, Virginia Beach, Virginia, 1989.

Invited Presentations (present-1999)

- “Environment and cancer: strategies for identifying new hazards”. Workshop on the Environment and Cancer, American Cancer Society, Atlanta, Georgia, USA. January, 2008.
- “A systems approach to human health risk assessment”, Environmental Health Sciences Decision Making: Risk Management, Evidence and Ethics. US National Academy of Sciences, Washington, DC, USA. January, 2008.
- “Finding targets for high-throughput screening linking genetics, genomics, pathways and human disease”. NTP Biological Screening Program Seminar Series. January, 2008.
- “The forest for the trees: A systems approach to environmental health research”. Keynote Address, KTL-DEH Center of Excellence Program, Lamalo, Finland. December, 2007.
- “Toxicology for the 21st Century”, ECNIS Research Colloquium, Engelheim, Germany, October, 2007.
- “Evidence-Based Decision Making in Public Health”, First International Workshop on Evidence-Based Toxicology, Cuomo, Italy. October, 2007.
- “Genes, Pathways and Diseases”, World Health Organization Headquarters, Geneva, Switzerland. September, 2007
- “Pharmacokinetics and dynamics of ketamine in horses”, University of Bern, June, 2007
- “Uncertainty and Variability in Risk Assessment”, NAS Workshop on Characterizing Uncertainty: Subgroup on Uncertainty in Estimating Low-Dose Risk from High-Dose Data, June, 2007
- “The utility and interpretation of high-throughput screening data in risk assessment with focus on the NTP programs”, International Workshop on “Evaluating upstream endpoints for improved decision making and risk assessment”, Berkeley, Ca. May, 2007
- “Future directions of risk assessment at the World Health Organization”, International Program for Chemical Safety Harmonization Steering Committee Meeting, Berlin, Germany, May, 2007
- “Chipping away at environmental health risk assessment”, GEMS annual meeting, Research Triangle park, NC, April, 2007
- “The forest for the trees: A systems approach to environmental health”, National Conference on Science, Policy and the Environment, Washington, DC, February, 2007
- “Emerging technologies and their application in risk assessment”, National Research Council Standing Committee on Risk Analysis Issues and Reviews, Washington, DC, December, 2006
- “Stochastic systems biology modeling”, International Congress on Systems Biology, Tokyo, Japan, October, 2006
- “Acceptable risk: environmental health research and public health”, National Symposium on Acceptable Risk in Clinical Medicine, RTP, NC, September, 2006

- “Stochastic Systems Biology”, Society for Industrial and Applied Mathematics Annual Meeting, Raleigh, NC, August, 2006.
- “Identifying and Quantifying Gene Interaction Networks”, Academia Sinica, Tapei, Taiwan, April, 2006.
- “Estimating Health Risks from Environmental Exposures”, Medical School, Cheng Kung National University, Taiwan, April, 2006.
- “Systems Biology and Environmental Health Research”, National Institute of Environmental Studies, Tsukuba, Japan, April, 2006.
- “Cancer Research and Risk Assessment: Looking to the Future”, Keynote Address, Cancer and the Environment Symposium, Duke University, March, 2006
- “Environmental Systems Biology”, Mount St Mary’s College, Maryland, March, 2006.
- “Bioinformatics in High Throughput Screening: A proposal”, ILSI Annual Meeting, Puerto Rico, January, 2006.
- “Gene Regulatory Networks in Cancer Risk Assessment, German Cancer Research Center, Heidelberg, Germany, December, 2005.
- “Alternative Methods in Toxicology; Problems and Solutions”, Keynote Address, Workshop on Alternative Methods in Toxicology, Baltimore, Maryland, November, 2005
- “Future Directions of the National Toxicology Program”, American Public Health Association Annual Meeting, New Orleans, Louisiana, November, 2005.
- “Risk Assessment”, A Mini-Course, University of Finland, Kuopio, Finland, October, 2005.
- “Mechanism-Based Modeling as an Alternative to Animals in Toxicology”, 5th World Conference on Alternatives To Animals Used in the Life Sciences, Berlin, Germany, August, 2005.
- “Environmental Systems Biology”, Toxicology Forum, Aspen, Colorado, July, 2005.
- “Mechanistic Implications of Modifiers of Chemical Toxicity”, Keynote Lecture, Workshop on Modifiers of Chemical Toxicity: Implications for Human Health Risk Assessment, Poros, Greece, June, 2005.
- “Future Directions in Screening for Toxicants”, Committee on the Future of Toxicology, National Academy of Sciences, Washington, DC, May, 2005.
- “Toxicogenomics and the Future of Cancer Risk Assessment”, International Agency for Research on Cancer, Lyon France, May, 2005.
- “Statistical Contributions to Federal Advisory Committees”, Eastern North American Region of the Biometrics Society Annual Meeting, Austin, Texas, March, 2005.
- “The Future of Long-Term Animal Carcinogenicity Studies”, Invited Debate, Society of Toxicology Annual Meetings, New Orleans, Louisiana, March, 2005.
- “Future Directions of the National Toxicology Program”, Society of Toxicology Annual Meetings, New Orleans, Louisiana, March, 2005.
- “Role of the National Toxicology Program in Risk Assessment”, Federal-State Oncology and Risk Analysis Committee, Madison, Wisconsin, October, 2004.
- “Identifying and Quantifying Cancer Risks using Mechanistic Data”, Cancer and The Environment: NCI Science Writers Seminar, National Institutes of Health, Bethesda, Maryland, October, 2004.
- “Toxicogenomics and the Future of Risk Assessment”, Office of Science and Technology Policy, Washington, DC, August, 2004
- “A Vision for the National Toxicology Program”, Toxicology Forum, Aspen, Colorado, June, 2004
- “Health and Environment”, Joint Program on Climate Variability and Human Health, Atlanta, Georgia, March, 2004
- “Dose-Response Analysis of Toxicogenomic Data”, NIEHS Toxicogenomics Faculty, Research Triangle Park, NC, December, 2003.
- “Dose-Response Analysis of Toxicogenomic Data”, DERT Retreat, Southern Pines, NC, December, 2003.
- “Toxicogenomics and the Research Directions of the National Toxicology Program”, Keynote Address, Conference on Toxicology in the 21st Century, Korean Food and Drug Administration, Seoul, Korea, November, 2003.

- “Dioxin and Agent Orange: What is known and what is suspected”, Keynote Address, NCST/NIEHS Conference of Environmental Mediation for Dioxin Soil Contamination, Hanoi, Vietnam, November, 2003.
- “Dose-Response Analysis of Toxicogenomic Data”, NCSU/NIEHS Workshop on Bioinformatics and Risk Assessment, Research Triangle Park, NC, October, 2003.
- “Health Effects of Electric and Magnetic Fields: Current Research Directions”, Joint WHO/Japanese Ministry of Health Public Meeting on Cellular Radiation, Tokyo, Japan, September, 2003.
- “Future Directions in Toxicology and the National Toxicology Program”, NIEHS Public Liaison Meeting, New York City, September, 2003.
- “Chipping Away at Risk Assessment: Genomics, Proteomics, Metabonomics and Cancer Risk Assessment”, Society of Toxicologic Pathology, Savannah, Ga. June, 2003.
- “Cancer Modeling; An Overview”, Statistical Methods in Cancer Research, Radiation Effects Research Foundation, Kyoto, Japan, March, 2003 (presented by H. Toyoshiba due to war in Iraq and US Govt. responsibilities)
- “Statistical methods for evaluating population exposures using CDC’s Environmental Report Card”, CDC, Atlanta, Ga. March, 2003.
- “Bystander Effects in Carcinogenesis”, Society of Toxicology Meetings, Salt Lake City, Utah, March, 2003
- “Validation and use of genetically-modified mouse models as alternatives in carcinogenicity testing”, ILSI Workshop on Genetically Modified Mouse Models, Alexandria, Va., February, 2003.
- “The Future of Genomics in Toxicology”, Mississippi State University, Oxford, Mississippi, February, 2003
- “NIEHS priorities in ecological research”, USGS Director’s Retreat, Washington, DC. January, 2003.
- “The US National Toxicology Program”, Keynote Lecture at Opening Ceremonies for the Korean National Toxicology Program, Seoul, Korea, November, 2002
- “The NIEHS/NTP Initiatives on Alternative Models in Toxicology”, Science Advisory Board Meeting of the Center for the Advancement of Alternatives in Toxicology, Johns Hopkins University, Baltimore, Maryland, November, 2002
- “The Analysis and Interpretation of Two-Stage Liver Bioassays in the Rat”, Workshop on Hepatic Preneoplasia: Quantitative Evaluation in Carcinogenesis Bioassays and Relevance for Human Hepatocarcinogenesis, Heidelberg, Germany, June, 2002
- “Chipping Away at Risk Assessment: Genomics, Proteomics, Metabonomics and Cancer Risk Assessment”, Office of Environmental Health Hazard Assessment, California Department of Health, Sacramento, California, June, 2002
- “Mechanistic Modeling of Stochastic Endpoints”, NIEHS Conference on Future Directions in Biostatistics, Research Triangle Park, North Carolina, May, 2002
- “Mechanistic Models of Skin Carcinogenesis”, North Carolina State University, Raleigh, North Carolina, May, 2002
- “Endocrine Dismodulation and Cancer”, Workshop on Light, Endocrine Systems and Cancer, University of Cologne, Cologne, Germany, May, 2002
- “Mechanism-Based Quantitative Analysis of Carcinogenesis Data”, New York Academy of Sciences, April, 2002.
- “Emerging Issues in Cancer Risk Assessment”, Sunrise Expert Seminar, American Association for Cancer Research Annual Meetings, San Francisco, California, April, 2002
- “Quantitative Evaluation of Health Risks from Dioxin”, Joint US-Vietnam Scientific Conference on the Health and Environmental Effects of Agent Orange/Dioxin in Vietnam, Hanoi, Vietnam, March, 2002
- “Cancer Risk Assessment”, Hanoi Medical School/Vietnam Environmental Protection Agency/Vietnam Ministry of Health Joint Seminar, Hanoi Vietnam, January, 2002
- “Mechanism-Based Modeling of Genomics Data”, University of Berne, Switzerland, October, 2001.

- “Multistage Models of Carcinogenesis”, International Biometrics Conference Satellite Meeting, Fukuoka, Japan, September, 2001. (given by H. Toyoshiba due to conflict in scheduling)
- "Discussion of CDC's Report on Levels of Environmental Contaminants in Human Tissues", National Public Radio Talk of the Nation Science Friday, March, 2001.
- “Mixtures and Models in Environmental Health Risk Assessment”, *NIEHS/Colorado State University* conference on the Application of Technology to Chemical Mixture Research, January, 2001
- “Biological and biophysical research at extremely low- and radio-frequencies”, Forschungsgemeinschaft Funk, Bad Münstereifel, Germany, December 2000.
- “Harmonization of study evaluation and health risk assessment”, 2nd International EMF Seminar, Chinese Ministry of Health, WHO and ICNIRP, Xian, China, October 2000.
- “QRA: extrapolations (animals to humans; high dose low dose)”, First International Course on Scientific Basis of Carcinogen Assessment – Quo Vadis?, NIVA, Naantali, Finland, September 2000.
- “Statistical and biological models and toxicological issues in risk assessment”, Center for Environmental Health Risk Assessment (CERA) workshop on Future Needs in Risk Assessment, Stockholm, Sweden, September 2000.
- “Innovative use of mechanistic considerations in forming quantitative risk assessment models”, Workshop on Future Research For Improving Risk Assessment Methods, National Institute for Occupational Safety and Health, Aspen, Colorado, August 2000.
- “Latest scientific findings on dioxin”, Dioxin Summit, University of California at Berkeley, California, August 2000.
- “Stochastic modeling in carcinogenesis and development”, Virtual Human Workshop, Research Triangle Park, NC. June 2000.
- “Evaluating health risks; methods and examples”, Federal Office for Public Health, Bern, Switzerland. May 2000.
- “Decisions about environmental health risks: What are the key questions and how does this apply to melatonin”, Low frequency EMF, visible light, melatonin and cancer”, International Symposium, University of Cologne and the German Research Society, Cologne, Germany. May 2000.
- “Children's environmental health-risk assessment issues and challenges”, California Environmental Protection Agency, Office of Environmental Health Assessment, Oakland, CA. April 2000.
- “Children’s environmental health risks”, WHO/NIEHS Pacific Rim Meeting on Children’s Health, Manila, April, 2000.
- “Toxicology and environmental health seminar series 2000”, University of Florida, Gainesville, Florida. April 2000.
- “Biologically based population health risk assessment models”, University of Ottawa, Department of Epidemiology and Community Medicine and the Institute of Population Health, Ottawa, Canada. March 2000.
- “Molecular epidemiology: a new tool in cancer prevention”, Applying science to regulatory policy and public health, Keystone Symposium, Taos, New Mexico. February 2000.
- “Statistical methods used for evaluating chemical safety in the environment”, Mathematical Research Institute, Oberwolfach, Germany. February 2000.
- “Mechanism-based mathematical modeling in health risk assessment” NC State University, January, 2000.
- “Methods for analyzing and quantifying EMF health risks”, WHO/ICNIRP scientific meeting, Erice, Sicily, Italy. November 1999.
- “Harmonization of cancer and non-cancer risk assessment”, The Society of Toxicology, Washington, DC. November 1999.
- “Risky business: evaluating the safety of environmental exposures”, Illinois Environmental Health Association, 1999 Annual Education Conference, Peoria, IL. October 1999.
- “Challenges in the use of experimental and epidemiological data in health risk assessment”, Symposium on “Statistical methods in epidemiology and demography”, Department of Biostatistics at the University of North Carolina in Chapel Hill, Chapel Hill, North Carolina. October 1999.

- “Linking toxicokinetics and toxicodynamics in biologically-based dose response models”, Dioxin 99, 19th International Symposium on Halogenated Environmental Organic Pollutants and Persistent Organic Pollutants (POP’s), Venice, Italy. September 1999.
- “How did WHO decide on a TDI for dioxin”, Faculty of Environmental Studies in Nagasaki University and the Department of Medical Informatics in Kyushu Medical School, Nagasaki, Japan. September 1999.
- “PBPK Models for Estrogen”, Workshop To Evaluate Research Priorities For Endocrine Active Compound Risk Assessment Methods, CMA, EPA, NIEHS, Research Triangle Park, North Carolina. August 1999.
- “Risk assessment activities in the National Toxicology Program; risk assessment methodology, and mechanistic modeling of endocrine disruptors and dioxins”, Harvard Symposium on Persistent Organic Pollutants (POPS): A Public Health Perspective, Boston, Massachusetts. June 1999.
- “Do extremely low frequency electric and magnetic fields pose a health risk?”, 21st Annual Meeting of the Bioelectromagnetics Society, Long Beach, California. June 1999.
- “Probabilistic assessment of cancer dose response data”, Probabilistic Risk Assessment Workshop, Sarasota, Florida. February 1999.
- “Linking toxicology and epidemiology: the role of mechanistic modeling”, CDC and ATSDR Symposium on Statistical Methods, Emerging Statistical Issues In Public Health For The 21st Century, Atlanta, Georgia. January 1999.
- “Evaluation Of Health Risks From Exposure To Electric And Magnetic Fields; Completion Of A 2-Year Review Process”, Toxicology Round Table, Virginia-Maryland Regional College of Veterinary Medicine, Blacksburg, Virginia. January 1999.

Commentaries and Interviews:

Science Profile	Environmental Health Perspectives (multiple dates, multiple topics)
US-Vietnam Joint Research Activities	US News and World Report, April 26, 1999; Reuters (multiple dates 2000-2003); Nature, October, 2000; Asia Times (multiple dates 2000-2003); UPI (multiple dates); and others
NTP Activities	BioMedNet News, April 30, 2002; Seattle Times (multiple dates); and others.
EMF Report	Multiple dates and locations including CNN and other live interviews.
Science Magazine	Dioxin Draft Sparks Controversy: Vol. 288, No. 5470, May 26, 2000, pp.1313-1314; EPA Ponders Pesticide Tests in Humans; Vol. 283, No. 5398, Jan 1, 1999, pp. 18-19; Interview with C. Portier and G. Lucier: More pieces in the Dioxin Puzzle, L. Roberts, Science, p. 377, October 18, 1991.
Radio Interviews	National Public Radio, Science Friday (Environmental Report Card), March, 2000; Radio Australia News (Agent Orange), March, 2001; Voice of America (Agent Orange), March 2001; and others.
Television Interviews	CNN (Power Lines), June, 1999; ABC News (Power Lines), June, 1999; CNN (Agent Orange), March, 2002; Vietnam Television (Agent Orange), March, 2002; ABC News, January, 2003 (Report on Carcinogens) and others.
Portier CJ, Schwartz DA	<u>The NIEHS and the National Toxicology Program: An integrated scientific vision</u> ENVIRON HEALTH PERSP 113 (7): A440-A440 JUL 2005

Interagency Agreements and Intramural Research Grants

- US Environmental Protection Agency* (1993-1994). Development and implementation of a mechanistic model for 2,3,7,8-TCDD. \$25K.
- Agency for Toxic Substances and Disease Registry* (1994-1996). Study of the relationship between chemical structure/activity and dose-response shape and magnitude for carcinogens and development of physiologically based pharmacokinetic models for risk assessment. \$796K.

- NIEHS*, Intramural Research Grant (1995-1998). Development of a mechanistic model of the impact of electromagnetic fields on melatonin. \$180K.
- NIEHS*, Interagency Coordinator for Risk Assessment, EMFRAPID Program (1996-1998). Evaluation of potential risks from exposure to electric and magnetic fields. \$2 million.
- US Environmental Protection Agency* (1999). Update to Dose-Response Chapter, Dioxin Reassessment. \$25K.
- NIH*, Office of Research on Minority Health (1999-2002) GIS/Resampling method for evaluating data on environmental justice. \$70K.

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- P Williams. *Estimating tumor incidence rates using the method of moments and maximum likelihood estimation combined*. Department of Biostatistics, University of North Carolina, Chapel Hill, North Carolina, 1989.
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- CD Sherman. *Multipath/multistage models of carcinogenesis*. Department of Statistics and Actuarial Sciences, University of Waterloo, Waterloo, Ontario, Canada, 1994.
- C Lyles. *Cell labeling data: Models and parameter estimation*. Department of Biostatistics, University of North Carolina, Chapel Hill, North Carolina, 1995.
- F Ye. *The equal slopes test for benchmark doses*. Department of Biostatistics, University of North Carolina, Chapel Hill, North Carolina, 2000 (expected).
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