CURRICULUM VITAE

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2017

EMPLOYMENT

2017-	Professor. Risk Science Center (aka TERA Center). Department of Environmental Health, University of Cincinnati, College of Medicine, Cincinnati, Ohio
2015-16	Professor and Director. Toxicology Excellence for Risk Assessment Center, Department of Environmental Health, University of Cincinnati, College of Medicine, Cincinnati, Ohio
1995-15	Director/President. Toxicology Excellence for Risk Assessment, Cincinnati, Ohio
1991-94	Chief. Systemic Toxicants Assessment Branch, Environmental Criteria & Assessment Office (ECAO), U.S. Environmental Protection Agency (EPA), Cincinnati, Ohio
1990-91	Associate Director. ECAO, Cincinnati, Ohio
1989-90	Chief. Pesticides and Toxics Team, EPA, Washington, D.C.
1986-89	Chief. Methods Evaluation and Development Staff, ECAO, Cincinnati, Ohio
1985	Leader. Acceptable Daily Intake (ADI) Group, ECAO, Cincinnati, Ohio
1980-84	Staff Toxicologist. ECAO, Cincinnati, Ohio

EDUCATION

1988-89	Executive Potential Program. U.S. Office of Personnel Management
1986-87	Zenger Miller Supervision Course
1985-2015	Diplomate of the American Board of Toxicology
1975-80	University of Cincinnati, College of Medicine, Ph.D. degree in toxicology
1970-74	Wittenberg University, B.A. degree in biology

TEACHING

I have lectured in courses at the graduate level in several universities and institutes; have lectured high school students on the general principles of toxicology over several years; and have talked with grade school students on several occasions about careers in science and my experiences in Africa. I participated as a member of the Ph.D. thesis committee of Dr. Natalia Foronda of the Ministry of Health, New Zealand.

RESEARCH: INVITED PRESENTATIONS (Selected)

"Managing the non-cancer risks a hazardous waste sites: Trichloroethylene (TCE) as a case study"
Association for Environmental Health and Sciences (AEHS) Foundation. San Diego, California March 21, 2017.

"The concept of hormesis and application in risk assessment"
Society of Toxicology, Baltimore, Maryland, March 14, 2017.

"The concept of hormesis and application in risk assessment"
Society for Risk Analysis, San Diego, California, December 12, 2016

"Mechanics of Risk Assessment"
In workshop on Risk Analysis**. Institute for Humane Studies and the Mercatus Center at George Mason University**. Portland, Oregon, June 18th, 2016.

"Yes, 'Thresholdable' Carcinogens Are Still Delaney Carcinogens"
Roundtable Session: Is a "Thresholdable" Carcinogen Still a Delaney Carcinogen?
Society of Toxicology, New Orleans, Louisiana, March 14, 2016.

"Distinguishing between Mode and Mechanism of Action, and Some Key Events for MOA"
Colloquium: Role of Mode of Action in Dose-Response Assessment for Carcinogens.
Food and Drug Administration and the Society of Toxicology, College Park, Maryland, February 25, 2016.

"Harmonizing OELs: Commonalities and Differences"
Keynote talk at the annual meeting of the **Occupational Toxicology Roundtable**. New Brunswick, New Jersey, October 4, 2015

"Risk assessment and hazard identification for metals"
"Human health case study: mercury exposure and essential metals"
"Human health criteria and standards"
Asian Pacific Economic Conference Workshop on Metals Risk Assessment, Cebu, Philippines on 28-29th August 2015.

"Hepatotoxicity"
"Cardiac Toxicity"
"Hazard Identification/Dose Response"
"Exposure Assessment/Characterization"
International Workshop On Comprehensive Toxicology, Bengaluru, India, July 27-31, 2015.

"Defining the range of the reference dose: imprecision versus uncertainty"

The TCE Revolution and its Permanent Impact on Environmental Due Diligence, EDR Insight, National Teleconference/Webinar. June 24.

"Assessment and management of Elk River, West Virginia drinking water contamination incident, 2014"
British Toxicology Society Annual Congress, Birmingham, UK, April 20.

"Hazard & Dose Response Assessment: Roadmaps & Methods for Using 21st Century Data"
Ohio State University, Columbus, Ohio, February 23.

"Practical Guidance on the Development of a Non-cancer Hazard Range for Effective Risk Assessment and Risk Management of Contaminated Sites: A Case Study with Trichloroethylene and Other Chemicals"
Tri-Service Environmental Risk Assessment Work Group, Naval Medical Center, Portsmouth, VA. Jan. 21, 2015.

"Advances in Assessing Food Additive Safety"
SPI Food, Drug and Cosmetic Packaging Materials Committee. Food Packaging Summit. New Orleans, LA. Nov. 10-12, 2014.

"Mode of Action and Dose-Response Evaluation of the Effect of Partially Hydrogenated Oils on LDL-Cholesterol"
SOT-FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety. Colloquium One. College Park, MD, Live Webcast. Nov. 7, 2014.

"Risk Assessment Roadmaps & Methods for Using 21st Century Data"
International Institute of Synthetic Rubber Producers, Inc. Houston, Texas. Nov. 6, 2014.

"Advances in Assessing Ingredient Safety"
Workshop on GRAS Determinations. **International Society of Regulatory Toxicology and Pharmacology.** Washington, DC. Oct. 14, 2014.

"Case study #3: Partially Hydrogenated Oils (PHOs)"
The Role and Use of Nutritional Studies I Evaluating the Safety of a Food or Ingredient. ILSI North American Special Workshop. Washington, DC. July 22, 2014.

"Opportunities and Challenges Posed By the Use of 'omics' data in Risk Assessment of Mixtures"
Toxicology Risk Assessment Conference (TRAC). Cincinnati, Ohio. April 8, 2014.

"Alliance for Risk Assessment (*ARA*), EDSP, TCE, Science and Decisions"
Monsanto. St. Louis, MO. April 10, 2013.

"Risk Assessment Roadmaps & Methods for Using 21st Century Data"
Weight of Evidence Workshop. **International Life Sciences Institute (ILSI)** North America Technical Committee on Food & Chemical Safety. Miami, Florida. January 23-24, 2013.

"Advancing human health risk assessment: Charting a Course through committee recommendations"
Society for Risk Analysis Annual Meeting. San Francisco, CA. Dec. 9-12, 2012.

"How Individual Variability is Currently Factored into Risk Assessment/Regulation/Decision Making"

Emerging Science for Environmental Health Decisions. **The National Academies of Science**, Board on Life Sciences, Board on Environmental Studies and Toxicology. Washington, D.C. April 18-19, 2012.

"A Hitchhikers Guide to the Galaxy of Practical Risk Assessment"
Resource sharing, partnering, and cooperative science policy resolution. US EPA and Region V States **Vapor Intrusion Video Conference Roundtable.** Columbus, OH. April 12, 2012.

"Problem formulation to dose response: Advance via the *ARA* Beyond Science and Decisions workshops"
New England Chapter of the Society for Risk Analysis. Boston, MA. January 24, 2012.

"Risk Analysis on the Coast"
Society for Risk Analysis Annual Meeting. Charleston, SC. Dec. 4-7, 2011.

"Current Environmental Risk Assessment: Getting ready for Century 21"
Association of Government Toxicologists. Washington, D.C. March 29, 2011.

"Risk Assessment"
Global Chemistry. Baltimore, MD. March 22, 2011.

"Peer Review and Consultation Program"
American Chemistry Council. Washington, D.C. Feb. 16, 2011.

"Fishbowl"
Risk 21: Realizing the Future of Risk Assessment Workshop**. International Life Sciences Institute**. Washington, DC. Jan. 11, 2011.

"Draft Toxicological Review of Hexavalent Chromium"
Environmental Protection Agency's IRIS listening session. Washington, D.C. November 18, 2010.

"Perspectives of Air Pollutants: Health Effects Research Update Session: Risk"
Clean Air Forum. Houston, TX. Nov. 4, 2010.

"A Risk Assessment and Regulatory Agency Perspective on Mixtures Affecting Susceptible Populations"
Society of Toxicology Annual Meeting. Salt Lake City, Utah. March 6-12, 2010.

"Risk Analysis: The Evolution of a Science"
Society for Risk Analysis Annual Meeting. Baltimore, MD. Dec. 5-10, 2009.

"Environmental Risk in the 21st Century"
International Society of Regulatory Toxicology and Pharmacology. Washington, D.C. Dec. 9, 2009.

"Emerging issues and regulatory challenges and the science of risk assessment"
Keynote talk at the **Midwestern States Environmental Consultants Association** biannual meeting. Indianapolis, Indiana. November 3, 2009.

"Making a Successful Transition from Government to Non-Profit Sectors"
Society of Toxicology. Baltimore, MD. March 15-20, 2009.

"Exposure, and Risk Data: Ensuring the Best Science"
Society of Toxicology. Baltimore, MD. March 15-20, 2009.

"Scientific Peer Review: An Overview with Reference to the International Toxicity Estimates for Risk *(ITER)* Database"
Society of Toxicology. . Baltimore, MD. March 15-20, 2009.

"A Risk Assessment and Regulatory Agency Perspective on Mixtures Affecting Susceptible Populations"
Society of Toxicology. Baltimore, MD. March 15-20, 2009.

"Toxicology Excellence for Risk Assessment"
Environmental Council Of States and Department of Defense Sustainability Workgroup. Washington, D.C. June 20-21, 2007.

"Predicting risk above EPA's Reference Dose (RfD)"
Toxicology and risk assessment conference. **Multiple federal agency sponsors**. Cincinnati, Ohio. April 25, 2007.

"Using human data to protect public health"
Toxicology and risk assessment conference. **Multiple federal agency sponsors**. Cincinnati, Ohio. April 24, 2007.

"A Historical Perspective on Risk Assessment and Areas for Advancement"
Twenty-Eighth Annual Meeting of the **American College of Toxicology**. Nov. 11-14, 2007.

"Air toxics: Risk based analysis"
Symposium on air emission from large industrial sources. Endicott House, **Multiple sponsors**. August 16-17, 2006.

"What Should We Really Be Worried About?"
Seafood & Health '05: Issues, Questions and Answers. Session V. Assessing the Real Risks. **Department of Commerce**. Washington, D.C. December 2005.

"Future Use of Default Assumptions and Uncertainty Factors"
Michigan State University, Center for Integrative Toxicology. April 8, 2005.

"Mercury Regulation: Fishing For The Facts About Risk"
States and Nation Policy Summit. **American Legislative Exchange Council**. Washington D.C. December 3, 2004.

"Acceptable Daily Intakes (ADIs) and their Application in the Regulatory Process"
Meeting of the Technical Committee on Food Toxicology and Safety Assessment of the **International Life Sciences Institute**. North America. Washington, DC. Nov. 30, 2004.

"Human dose-response assessment of copper"
Science Symposium Update on Science Supporting the EU Voluntary Risk Assessment, **International Copper Association**. Rome. May 17, 2004.

"Integration of Toxicity and Molecular Mechanistic Data for Nonlinear Dose-Response Assessment. Application to Systems Biology and Risk Assessment"
2003 Annual Meeting, **Society for Risk Assessment**. Baltimore, Maryland. December 10, 2003.

"History of *TERA* Coordinated Public/Private Partnership on Perchlorate Research"
Perchlorate State-of-the-Science Symposium. **University of Nebraska, Center for Environmental Toxicology**. Omaha, Nebraska. September 29, 2003.

"Small Non-Profits in a Big Risk World: Greasing the Wheels of Change"
Featured Meeting Speaker, The **Northern California Chapter of the Society for Risk Analysis**. September 25, 2003.

"Risk Assessment"
In: ATSDR and RIVM Expert Panel Meeting on Chemical Risk Assessment and Children's Health. **ATSDR** and **RIVM**, Brussels. June 26, 2003.

"Perchlorate Reference Dose (RfD)"
California Environmental Protection Agency. September 26, 2003.

"Differential Sensitivity Of Children And Adults To Chemical Toxicity"
Midwestern States Risk Assessment Symposium. **Indiana Department of Environmental Management.** Indianapolis, IN. July 25, 2002.

"Modeling Of Population Variability"
Midwestern States Risk Assessment Symposium. **Indiana Department of Environmental Management.** Indianapolis, IN. July 25, 2002.

"Data Derived Replacement Of Default Uncertainty Factor"
Workshop on modeling of population variability. **Society of Toxicology.** Nashville, TN. March 19, 2002.

"Stone-Age Toxicity: From Factors of 10 to Compound-Specific Adjustments"
University of Cincinnati Medical Center, Dept. of Environmental Health Seminar. Nov. 2002.

"Does The Use Of Data-Derived Uncertainty Factors Allow Risk Assessors To Describe Uncertainty More Accurately?"
Fifth Annual Workshop on Evaluation of Default Uncertainty Factors in Health Risk Assessment, **New Jersey Medical School**. June 1, 2001.

"Risk Assessment"
HESI Agricultural Chemical Safety Assessment Subcommittee Steering Committee Meeting. **International Life Sciences Institute**. Washington, D.C, April 18, 2001.

"Risk Characterization Framework For Non-Lethal Weapons"
Symposium on comparative risk. **Society for Risk Analysis.** Seattle, WA. December 5, 2001.

"Noncancer Risk Assessment: A 20-Year Perspective"
Ohio Society for Risk Analysis. Noncancer Workshop. Cincinnati. June 13, 2000.

"Approaches to assessing dose response assessment relations"
Chulabhorn Research Institute. Training course on environmental and health risk assessment and risk management of toxic chemicals, Lak si, Bangkok, Thailand. November 21, 2000.

"Guidelines for Application of Data-Derived Uncertainty Factor in Risk Assessment"
Fourth Annual Workshop of Evaluation of Uncertainty Factors in Health Risk Assessment, **New Jersey Medical School.** May 3-4. 2000.

"Determining USEPA Reference Doses (RfDs) for Essential Minerals"
University of Ulster. Nutrition & Toxicology Excellence for Risk Assessment Workshop Series. Northern Ireland. June 18, 1999.

"The Challenges Of Using Common Mechanism Of Toxicity In Chemical Regulation"
Roundtable session. **Society of Toxicology**. New Orleans, LA. March 17, 1999.

"Extrapolating Data From Adults To Set ULs For Children"
Workshop on upper levels of nutrients. **National Academy of Sciences**. January 21, 1999.

Incidence and severity in relation to magnitude of intake: mixed effects, categorical regression"
International Life Sciences Institute. Workshop on the significance of excursions of intake above the ADI. Milan, Italy. April 23, 1998.

"Should there be an international accreditation of toxicologists? Accreditation in the USA"
International Congress of Toxicology. Paris, France. July 8, 1998.

"Quality Issues relating to scientific information"
US. EPA Data Quality and Gaps Workshop. **U.S. Environmental Protection Agency.** Washington, D.C. October 19, 1998.

"Noncancer Risk Assessment: Impact of Research on the Underlying Science"
International Society for the Study of Xenobiotics. Hilton Head, South Carolina. October 26-30, 1997.

"Alternatives to the NOAEL Approach (BMD, probabilistic approach)"
Federal Institute for Health Protection of Consumers and Veterinary Medicine. Workshop on Use of Uncertainty Factors in the Risk Assessment Process - New Directions. Berlin, Germany. May 5-7, 1997.

"Risk Assessment And The Role Of Risk Assessment Guidelines"
Workshop: EPA's neurotoxicity risk assessment guidelines. **Society of Toxicology**. Cincinnati, Ohio. March 11, 1997.

"Noncancer Risk Assessment: Impact Of Research On The Underlying Science"
Symposium V: Cancer and noncancer risk assessment. **International Society for the Study of Xenobiotics**. October 28, 1997.

"Overview: Classical Risk Assessment"
Risk Assessment in Establishing Upper Reference Levels of Nutrients Workshop. **Food & Nutrition Board, Inst. of Medicine,** Washington, DC. July 15-16, 1996.

"ADI, BMD, CEL...The Alphabet Soup of Methods for Dose Response Assessment"
In: Conference on Advances in Toxicology and Applications to Risk Assessment. **ATSDR**, **U.S. Army, Air Force, Navy and EPA**, Dayton, Ohio. April 25, 1996.

"Overview of EPA's Reference Dose Methodology"
In: Toxicology Peer Review Board Meeting of the **U.S. Army** Center for Health Promotion and Preventive Medicine. Aberdeen Proving Ground, Maryland. January 18,1996.

"Non-Cancer Risk Assessment: Three Practical Methods From A Decade Of Research"
In: New Techniques in Risk Assessment. **International Business Communication**. Orlando, Florida. February 15, 1996.

"Evolution of Science-based Uncertainty Factors in Noncancer Risk Assessment"
The 2nd Annual Workshop on the Evaluation of EPA 10X Safety Factors in Health Risk Assessment. **New Jersey Medical School**. Nutley, NJ. December 6, 1996.

"Noncancer Hazard Identification and Dose Response Assessment, Part 2"
In: Risk assessment. **University of Cincinnati, College of Medicine**. April 18, 1996.

"Dose Response Class Exercise: Aroclor"
In: Risk assessment. **University of Cincinnati, College of Medicine**. April 30, 1996.

"Introduction to Risk Assessment"
In: Risk assessment. **University of Cincinnati, College of Medicine**. March 26, 1996.

"Systemic Toxicants, Cross Route Extrapolation, Complex Mixtures"
In: Risk assessment. **University of Cincinnati, College of Medicine**. May 23, 1995.

"On Reference Dose and Its Underlying Toxicity Data Base"
Health Canada. Threshold of Regulation Workshop. Ottawa, Canada. March 28, 1995.

"Presentation of Ongoing Work on Characterization of Distributions of Data which Serve as the Basis for Uncertainty Factor" **Health Canada**. Planning Meeting on Uncertainty Factors. Ottawa, Canada. March 18, 1995.

"Advances in Research Used as an Adjunct to Toxicity Testing: EPA Perspective"
In: Regulatory Update: EPA Regulation and Test Requirements. **American College of Toxicology.** Annual Meeting. Vienna, Virginia. November 12, 1995.

"Alternatives To The RfD: What Are We Getting And How Much Effort Does It Cost?"
Interagency Risk Assessment Committee. **State of New Jersey.** April 25, 1994.

"Panel Discussion"
In: Issues in reproductive and developmental risk assessment-boron toxicity as a test case. Annual Winter **Toxicology Forum**. February 22, 1994.

"Regulatory Considerations of the U.S. EPA"
In: Biological effects of low level exposures (BELLE) and potential implications for regulatory decision-making. **American College of Toxicology.** Annual Meeting. October 26, 1994.

"Noncancer Improvements Discussion Panel"
In: Health effects & risk assessment associated with noncarcinogenic, radioactive and mixed waste. **Air & Waste Management Association.** 87th Annual Meeting. June 23, 1994.

"Evaluating Subpopulations: Fish Consumption Advisory Methodology"
In: EPA Workshop on challenges in Risk Characterization. **U.S. Environmental Protection Agency,** Cincinnati. September 8, 1994.

"Inherent Imprecision of RfD"
In: EPA Regional Risk Assessors' Meeting. **U.S. Environmental Protection Agency**, Boston, MA. April 27th, 1994.

"New Methods: Benchmark Dose"
In: EPA Regional Risk Assessors' Meeting. **U.S. Environmental Protection Agency**, Boston, MA. April 26th, 1994.

"Components of Risk Assessment"
In: Risk assessment. **University of Cincinnati, College of Medicine**. March 29, 1994 (This same lecture was also given an additional two times at the Cincinnati State Technical and Community College on September 27th and November 15th).

"How Toxicity Data Are Used in the Process of Hazard Identification and Dose-Response Assessment"

In: Basic Risk Assessment: Current Developments. Continuing Education Course. **Society of Toxicology**. New Orleans, LA. March 14, 1993.

"Modifying Uncertainty Factors for Noncancer Endpoints"
In: Advanced Topics in Risk Assessment. Continuing Education Course. **Society of Toxicology**. New Orleans, LA. March 14, 1993.

"Noncancer Risk Assessment"
In: Course entitled "Introduction to Risk Assessment." **University of Kentucky.** Lexington, Kentucky. July 28, 1993.

"Noncancer Risk Assessment Science"
In: Risk Assessment and the Environment Series. Harvard Center for Risk Analysis. **Harvard School of Public Health.** Boston, MA. February 16, 1993.

"Statistical Research Planning of the Environmental Criteria and Assessment Office"
In: Workshop on Office of Research and Development Statistical Needs. **U.S. Environmental Protection Agency**, Research Triangle Park, North Carolina. May 12, 1993.

"EPA's Integrated Risk Information System"
International Programme on Chemical Safety, World Health Organization. Geneva, Switzerland. June 17, 1993.

"Noncancer Dose-response and Risk Characterization"
In: Course on Environmental Health Risk Assessment. **Nofer Institute of Occupational Health**, Lodz, Poland. March 31, 1993.

"Most Important Problems Encountered in Quantitative Risk Assessment at the National or International Level"
In: Meeting on Consultation on Guiding Principles and Methodology for Quantitative Risk Assessment in Setting Exposure Limits. **International Programme on Chemical Safety, World Health Organization**, Langen, Germany. January 19, 1993.

"Risk above the Reference Dose (RfD) Benchmark Dose (BMD)"
In: Conference on the Risk Assessment Paradigm after Ten Years. **U.S. Army, Air Force, Navy and EPA**, Dayton, Ohio. April 7, 1993.

"Benchmark Dose Approach to Risk Assessment"
In: **Federal-State Toxicology and Risk Analysis (FSTRAC)** Fall Meeting. Washington D.C. December 1-3, 1993.

"Overview of Alternatives to Benchmark Dose"
In: Workshop on Benchmark Dose Methodology**.** Public workshop sponsored by **U.S. Environmental Protection Agency, American Industrial Health Council, and International Life Sciences Institute**. Fairfax, Virginia. September 28-30, 1993.

"Development of RfDs and the IRIS Process"
In: Cincinnati Forum on Dose Response Issues of Risk Assessment for Trivalent and Hexavalent Chromium Salts. **Public workshop sponsored by U.S. Environmental Protection Agency**. Cincinnati, Ohio. August 19, 1993.

"The Use of Threshold Limit Values for Determining Community Standards: Current Issues"
In: Tutorial Session on Threshold Limit Values and Biological Exposure Indices. 11th International System Safety Conference. **Ohio Chapters of both the System Safety Society and the Society for Risk Analysis**. Cincinnati, Ohio. July 29, 1993.

"The IRIS Process"
In: Cincinnati Forum on Boron Containing Chemicals: Risk Factors and Characterizations. **Public workshop sponsored by U.S. Environmental Protection Agency**. Cincinnati, Ohio. February 11, 1993.

"Introduction to Risk Assessment"
In: Tutorial Session on Environmental and Occupational Risk Assessment and Risk Communication. 11th International System Safety Conference. **Ohio Chapter of the System Safety Society**. Cincinnati, Ohio. July 29, 1993.

"The U.S. EPA's Use of Uncertainty Factors"
In: Workshop on Safety Assessment for Non-Cancer Endpoints: The Benchmark Dose and Other Possible Approaches. **California EPA, U.S. EPA and U.S. Agency for Toxic Substances and Disease Registry**, Tiburon, California, May 12, 1992.

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"Risk Assessment: Who needs it?"
All-Ohio Safety and Health Congress and Exhibit. Cincinnati, Ohio. April 1, 1992.

"Bridging the Chasm: Breakthroughs Needed in Noncancer Risk Assessment"
In: Kettering Seminar Series. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. January 22, 1992.

"Role of Risk Analysis and Risk Management in the U.S"
In: 3rd U.S.-Japan Governmental Conference on Drinking Water Quality Management. **Governments of the United States and of Japan**, Cincinnati, Ohio. September 22, 1992.

"The Reference Dose"
In: Conference on Trace Elements in Health and Disease. **International Society for Trace Element Research in Humans** and **Nordic Trace Element Society**, Stockholm, Sweden. May 27, 1992.

"Novel Approaches to the Estimation of Noncancer Health Risk"
International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland. January 16, 1992.

"The Reference Doses for Chromium"
In: Workshop on Risk Assessment of Essential Elements. Public workshop sponsored by **U.S. Environmental Protection Agency, Agency for Toxic Substances and Disease Registry, and International Life Sciences Institute**, Herdon, Virginia. March 12, 1992.

"The Reference Dose"
In: Workshop on Risk Assessment of Essential Elements. Public workshop sponsored by **U.S. Environmental Protection Agency, Agency for Toxic Substances and Disease Registry, and International Life Sciences Institute**. Herdon, Virginia. March 10, 1992.

"Novel Approaches to the Estimation of Noncancer Health Risk: Probabilistic RfDs, Benchmark Dose, and Severity Modeling"
In: Workshop on Risk Assessment for Noncarcinogens. **Health and Welfare Canada**, Tunney's Pasture, Ottawa. April 29, 1991.

"Novel Approaches to Noncancer Health Risk Assessment"
In: EPA Regional Risk Assessors' Meeting. **U.S. Environmental Protection Agency**, Denver, Colorado. June 25, 1991.

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"Risk Communication-A Challenge for the 1990's and Beyond"
System Safety Society. Cincinnati, Ohio. August 5, 1991.

"Quantitative Risk Assessment: The Reference Dose (RfD) and Research to Improve this Model Including the Use of Average Uncertainty Factors"
In: Symposium on Neurotoxicity Risk Assessment: State of the Art. **Society of Toxicology.** Dallas, Texas. March 1, 1991.

"Novel Approaches for Quantitative Assessment of Risks for Noncancer Effects"
Boston Risk Assessment Group and **New England Chapter of the Society for Risk Analysis.** Boston, Massachusetts. February 12, 1991.

"Impact of Risk Related Concerns on the EPA Programs"
In: Advanced Research Workshop on Nitrate Contamination: Exposure, Consequences and Control. **North Atlantic Treaty Organization (NATO)**, Lincoln, Nebraska. September 14, 1990.

"How Are Environmental Criteria Developed?"
In: A course entitled "Environmental and Occupational Health Risk Assessment and Risk Management." Developed for **City of Cincinnati Council** and other local decision-makers. Cincinnati, Ohio. May 3, 1990.

"Non-carcinogenic Risk Assessment"
In: Risk Assessment Workshop. **Federal-State Toxicology and Regulatory Alliance Committee**. Washington D.C. April 19, 1990.

"Risk above the RfD and Benchmark Dose Procedures"
In: Workshop to Discuss Noncancer Risk Assessment Methods/Data Needs to Support the New Clean Air Act Amendments. **U.S. Environmental Protection Agency**, Research Triangle Park, North Carolina. July 23, 1990.

"Reference Dose (RfD)"
In: Workshop to Discuss Noncancer Risk Assessment Methods/Data Needs to Support the New Clean Air Act Amendments. **U.S. Environmental Protection Agency**, Research Triangle Park, North Carolina. July 23, 1990.

"Guidelines Used to Assess Toxicological Hazards: Quantification Issues"
In: Symposium on Access and Use of Information Resources in Assessing Health Risks from Chemical Exposure. **Oak Ridge National Lab** and **U.S. Environmental Protection Agency**, Knoxville, Tennessee. June 28, 1990.

"How Statutes and Executive Orders Affect the Use of Scientific Information"
In: Regulation Development in EPA Course. **U.S. Environmental Protection Agency**, Washington, D.C. June 20, 1990.

"Risk Assessment and Its Uses: Directions of New Research"
National Institute of Occupational Safety and Health (NIOSH), Cincinnati, Ohio. June 20, 1989.

"Health Risk Assessment: Chronic Reference Dose"
In: Washington Conference on Risk Assessment. **Center for Energy and Environmental Management.** Washington, D.C. September 26, 1989.

"EPA's Approach to Developing Acceptable Air Quality Criteria"
In: 4th Annual Conference**. HAZTECH International.** Cincinnati, Ohio. September 13, 1989.

"The Underlying Basis of Risk Management Decisions"
In: 4th Annual Conference**. HAZTECH International.** Cincinnati, Ohio. September 12, 1989.

"Derivation of Risk Values by EPA"
Hazardous Materials Management Conference and Exhibition/Central. Rosemont, Illinois. March 15, 1989.

"The Reference Dose"
American Industrial Hygiene Association, Annual Toxicology Symposium. Williamsburg, Virginia. August 16, 1988.

"Reference Dose: Description and Use in Health Risk Assessments"
In: 54th Annual Meeting. **American Mosquito Control Association.** Denver, Colorado. February 2, 1988.

"Use of Uncertainty Factors for Reference Dose"
In: Workshop on the Use of the EPA Tools in State Risk Assessment. **National Governors' Association**. Copper Mountain, Colorado. May 4-6, 1988.

"Development of Oral Reference Doses"
In: Workshop on EPA's Integrated Risk Information System: Access, Use, and Interpretation. **U.S. Environmental Protection Agency**, Lexington, Massachusetts. July 22, 1987.

"The Systemic Toxicity of Air Pollutants: New Directions in Health Risk Assessment"
In: Session 100: Balanced Approach to Risk Assessment. Annual Meeting**. Air Pollution Control Association.** New York, New York. June 22, 1987.

"Safety Factors in Non-Carcinogenic Risk"
In: Workshop on Reducing Uncertainty in Risk Assessment. **Michigan State University.** East Lansing, Michigan. May 18, 1987.

"New Development in the Derivation and Application of Acceptable Daily Intake Values"
In: Workshop on Approaches to Ecological and Human Health Risk Analysis for Disposal of Contaminated Sediments and Human Consumption of Contaminated Seafood. **U.S. Environmental Protection Agency** and **U.S. Department of the Army**, Seattle, Washington, December 16, 1985.

"Human Health Assessment"
In: Workshop of Water Quality-Based Toxics Control. **U.S. Environmental Protection Agency**, Philadelphia, Pennsylvania. November 14, 1985.

"Systemic Health Hazard Assessment"
In: Workshop on Human Health Criteria. **U.S. Environmental Protection Agency**, Philadelphia, Pennsylvania**.** October 3, 1985.

"Novel Methods for the Estimation of Acceptable Daily Intake"
In: Course entitled "Risk Assessment 101." **U.S. Environmental Protection Agency**, Washington, D.C. February 19, 1985.

"Use of Risk Assessment to Set Safe Levels"
In: Conference on Emerging Issues in Environmental Analysis and Planning: Implication for Professional Education. **University of Cincinnati**, **U.S. Army Corps of Engineers** and the **U.S. Environmental Protection Agency.** Cincinnati, Ohio. April 12, 1985.

"Environmental Risk Assessment"
In: Course on Applied Toxicology. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. April 6, 1984.

"Toxicity Risk Assessment"
U.S. Environmental Protection Agency, Atlanta, Georgia. July 7, 1984.

"The Regulatory History and Experimental Support of Uncertainty (Safety) Factors"
In: Workshop on Toxic Air Pollution: A Regulatory Challenge. **State and Territorial Air Pollution Control Officials**. Washington, D.C. October 10-12, 1984.

"Traditional Means of Assessing the Safety of Non-carcinogens"
In: Symposium on Federal Regulation of Carcinogens. **American Chemical Society.** Washington, D.C. August 30, 1983.

"The U.S. Environmental Protection Agency Perspective of Qualitative Risk Assessment"
In: Course on Applied Toxicology. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. March 30, 1983.

"EPA Criteria Documents"
In: Fifth Annual Course in the Principles and Practices of Genetic Toxicology. Division of Environmental Toxicology. **University of Texas Medical Branch.** Galveston, Texas. 1980.

"Quantitative Considerations in Urethane Induced Neoplasia"
In: Toxicology Division Seminars Series. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. October 25, 1979.

"Some Quantitative Aspects of Chemical Carcinogenesis II"
In: Toxicology Division Seminar Series. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. February 2, 1979.

"Some Quantitative Aspects of Chemical Carcinogenesis I"
In: Toxicology Division Seminar Series. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. March 7, 1978.

"Computer Simulation Studies on Kehoe's Lead Data"
In: Toxicology Division Seminar Series. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. May 14, 1977.

"A New Approach to Minimum Toxic Dose"
In: Toxicology Division Seminar Series. **University of Cincinnati, College of Medicine.** Cincinnati, Ohio. February 25, 1976.

I also have given over 50 formal, but uninvited, presentations (e.g., abstracts at the scientific annual meetings).

RESEARCH: RISK ASSESSMENT PUBLICATIONS (Selected)

Michael Dourson and Raymond G York. 2016. Advances in Assessing Ingredient Safety. Regulatory Toxicology and Pharmacology. 79:S112-S118.

Michael Dourson, Bernard Gadagbui, Rod Thompson, Edward Pfau, and John Lowe. 2016. Managing Risks of Noncancer Health Effects at Hazardous Waste Sites: A Case Study Using the Reference Concentration (RfC) of Trichloroethylene (TCE). Regulatory Toxicology and Pharmacology 80:125-133.

Ted W. Simon, Yiliang Zhu, *Michael L. Dourson,* Nancy B. Beck. 2016. Bayesian methods for uncertainty factor application for derivation of reference values. Regulatory Toxicology and Pharmacology 80:9-24.

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Stara, J. F., *M. L. Dourson* and C. T. DeRosa. 1981. Water Quality Criteria: methodology and applications. In: Conference Proceedings in Environmental Risk Assessment: How New Regulations Will Affect the Utility Industry, Electric Power Research Institute, Palo Alto, California.

Dourson, *M. L.* and C. S. Baxter. 1981. Reduced incidence and growth rate of urethane induced lung adenomas in aging adult strain A mice. Toxicology, 20:165-172.

Manson, J. M., *M. L. Dourson* and C. C. Smith, 1977. Effects of Cytosine Arabinoside on *in vivo* and *in vitro* Mouse Limb Development. In Vitro, 13(7):434.

I have also co-authored well over 100 documents for the EPA, TERA and others that address either risk assessments for specific chemicals, or risk assessment methods, and have additional published manuscripts that are not listed here. I have also written two stories on integrating science and Biblical text: *Messiah's Star* and *The Beginning*.

RESEARCH: COMMENTARIES (Selected)

Thomas G. Osimitz, *Michael L. Dourson*, A. Wallace Hayes, and Sam Kacew. 2014. Crystallographic Analysis and Mimicking of Estradiol Binding: Interpretation and

Speculation. Environmental Health Perspectives. Volume 122 (number 4), April 2014, page A 91.

Gail Charnley, Thomas Cluderay, *Michael Dourson*, George Gray, Tom Roberts. The Perchlorate Debate: Is the Chemical Worth Regulating. 2011. The Environmental Forum. Nov/Dec. Vol. 28(6), page 46-53.

Haber, L., Maier, A., and *Dourson, M.* 2006. Using Best Science in Cancer Risk Assessment, Editorial. Hum Ecol Risk Assess 12(1):1-8.

Strawson, J., *M. Dourson*, Q. Zhao. 2005. The NAS Perchlorate Review: Is the RfD Acceptable? 2005. Env. Health Perspect 113(11):A729-30; Nov. Author reply A730-2.

Naumann, B., B. Meek, *M.L. Dourson*, and E. Ohanian. 2005. The Future of Chemical Specific Adjustment Factors in Risk Assessment. Risk Policy Report. 12(31):14.

Strawson, J., Q. Zhao and *M. Dourson*. 2004. Response to Letter to the Editor. "Critical Effect of Perchlorate on Neonates is Iodide Uptake Inhibition". Reg. Tox Pharmacol. 40:378-379.

Dourson, M.L. 1996. Editorial: Uncertainty Factors in Noncancer Risk Assessment. Reg. Tox. and Pharmacol. 24, Article No. 0115. p. 107.

Dourson, M.L. 1995. How Regulatory Agencies View Biological Effects of Low Level Exposures. BELLE Newsletter. 4(1):7.

Dourson, M.L. and W. Jordan, 1989. How "Safe" Is the Groundwater that Americans Drink? Ground Water Monitoring Review, Fall Issue. 9:73-74.

Dourson, M. L., R. C. Hertzberg and J. F. Stara. 1986. Letters to the Editor. Fundamental and Applied Toxicology. 6:182-184.

O'Flaherty, E. J. and *M. L. Dourson*, 1983. A Reply to Letter to the Editor "Cells of Origin of Lung Tumors in Mice. Journal of the National Cancer Institute. 70(6):991-992.

SERVICE: SCIENTIFIC SESSIONS CHAIRED OR PLANNED (Selected)

Chair: Well Over 100 Risk Assessment Peer Review Meetings
Since 1986, and to the present, I have chaired well over 100 scientific peer review meetings for risk assessment documents. Documents have covered a number of topics including risk assessment methods and assessments including cancer and non-cancer toxicity. These meetings have been sponsored by a number of organizations through either Toxicology Excellence for Risk Assessment's (*TERA*) program of the International Toxicity Estimates for Risk (*ITER*) database (for examples, please see www.tera.org/peer), by EPA through its IRIS database (see www.epa.gov/iris), or by groups such as Versar. These reviews have discussed well over 400 chemicals or risk issues.

Chair: Tox21: Current Progress, Next Steps and Exploring the Concept of a New Center of Excellence
Society of Toxicology. Baltimore, Maryland. March 12, 2017.

Co-chair: Low-Dose Non-Monotonic Responses

Society of Toxicology. Baltimore, Maryland. March 14, 2017.

Chair: Endocrine Disruption: Research, Analysis, Regulation, & Communication
Society of Toxicology. New Orleans, Louisiana, March 14, 2016.

Chair: Derived No-Effect Levels+ Big Data Toxicology Meeting
Society of Toxicology. New Orleans, Louisiana. March 13, 2016.

Moderator: Can/Should peer-reviewed publications be used to formulate regulatory policy?
Society of Toxicology. San Diego, California. March 23, 2015.

Chair: Beyond Science and Decisions: From Problem Formulation to Dose Response
Alliance for Risk Assessment. Cincinnati, Ohio. May 9-11, 2015.

Facilitator: Integration of Scientific Evidence to Inform Ozone Effects on Human Health
Texas Commission on Environmental Quality. Austin. Texas. April 8, 2015.

Chair: TTC Threshold Levels & TTC Decision Tree
EFSA/WHO workshop on Threshold of Toxicological Concern (TTC). Brussels, Belgium. December 3-5, 2014.

Chair: Chemical Assessment Advisory Committee for Ammonia
U.S. Environmental Protection Agency (EPA). Washington, D.C. July 14-16, 2014.

Chair: Beyond Science and Decisions: From Problem Formulation to Dose Response
Alliance for Risk Assessment. Austin, Texas. May 20-22, 2014.

Chair: Expert Panel Review of Screening Levels for Exposure to Chemicals From the January 2014 Elk River Spill
West Virginia Testing Assessment Project. Charleston, West Virginia. March 31, 2014.

Chair: Workshop to Assess the Modes of Action of Lung Tumors in Mice From Exposures to Styrene Ethylbenzene, and Naphthalene
Styrene Information & Research Center. Cincinnati, Ohio. September 17, 2013.

Chair: Melding Exposure and Toxicology Science I the 21st Century: Moving from Hazard to a Risk Based Paradigm
The Toxicology Forum. Aspen, Colorado. July 7-11, 2013.

Co-chair: Advancing Risk Assessment Approaches…*in the 21st Century*
The Toxicology Forum. Washington, DC. January 30-Feb. 2, 2012.

Rapporteur: Weight of Evidence Workshop, Session #1: From Review to Inference
Center for Advancing Risk Assessment Science and Policy (ARASP). Washington, DC. December 4, 2012.

Chair: Soil Exposure: What Have We Learned and How Do We Improve Problem Formulations for Risk Assessment
The Toxicology Forum. Aspen, Colorado. July 10-14, 2011.

Co-Chair: Determination of the Contribution of Individual Stressors in Cumulative Risk Assessments

Society of Toxicology Annual Meeting. Salt Lake City, Utah. March 6-12, 2010.

Chair: Fetal and Early-Life Perchlorate Exposures and Outcomes
Symposium. Perchlorate Exposures, Iodine Modulation of Effect, and Epidemiologic Associations: Implications for Risk Assessment. An Ancillary Program of the Annual Meeting of the Society of Toxicology. Seattle, Washington. March 2008.

Chair: Perchloroethylene (PERC): Approaches To Evaluating Uncertainty In Health Risk Assessment
Toxicology Forum. Washington D.C. January 30-February 1, 2007.

Chair: Mechanism/Mode Of Action Analyses
Risk Assessment Methodology Technical Committee, Weight of Evidence Workshop. Health and Environmental Sciences Institute. Baltimore, Maryland. December 7-8, 2006.

Session Planner and Chair: Issues In Trichloroethylene Risk Assessment
Midwest States Risk Assessment Symposium. Indianapolis, Indiana. August 23, 2006.

Session Planner and Chair: Panel Discussion On Trichloroethylene Toxicity
Midwest States Risk Assessment Symposium. Indianapolis, Indiana. August 25, 2004.

Chair: Screening Level Assessment Of Exposure And Characterization Of Risk For Humans
Risk Methodologies External Peer Review Panel Meeting, The Soap and Detergent Association. Washington, D.C., January 14, 2004.

Chair: A Review of the Reference Dose (RfD) and Reference Concentration (RfC) Processes
External Peer Review for U.S. EPA via Versar. Washington, D.C., June 19, 2002.

Session Planner and Co-Chair: Modeling of Population Variability
Society of Toxicology. Nashville, TN., Tuesday, March 19, 2002.

Co-Chaired Methyl Mercury: Risk Assessment, Policy and Research Needs
Children's Health and the Environment 2000. 19th International Neurotoxicology Conference. Colorado Springs, Colorado, September 26, 2000.

Session Planner and Co-Chair: Effective Risk Communication: Avoiding the Pitfalls
Continuing Education Course at the Society of Toxicology Annual Meeting, Seattle, Washington, March 1, 1998.

Lead: Panel Discussion on Information Resources for Toxicology and Environmental Health
Society of Toxicology, NCAC. George Washington University. Washington, DC, June 18, 1996.

Moderator: Workshop on Toxicity Assessment
At Harmonization of State/Federal Approaches at the Environmental Risk Symposium. Michigan State University. May 20-21, 1996.

Chair: Session on Risk Assessment
Chromium Symposium. Multiple Sponsors. Arlington, Virginia, April 23-24, 1996.

Session Planner and Co-Chair: Risk Assessment of Essential Trace Elements (ETES)
Society of Toxicology Annual Meeting. Anaheim, California, March 13, 1996.

Session Planner and Chair: Risk Characterization
In: New Techniques in Risk Assessment. International Business Communication. Orlando, Florida, February 16, 1996.

Session Planner and Chair: EPA's Integrated Risk Information System: Future Directions
In: New Techniques in Risk Assessment. International Business Communication. Orlando, Florida, February 14, 1996.

Session Planner and Co-Chair: Role of Toxicology in Tomorrow's Risk Assessment Practices
Sponsored by the Society for Risk Analysis and the International Congress of Toxicology. Seattle, July 2-6, 1995.

Session Planner and Chair: Techniques for Quantifying Uncertainty in Risk Assessment
Society of Toxicology Annual Meeting, March 19, 1995.

Session Planner and Co-Chair: Statistical and Dose Response Models in Risk Assessment
Society of Toxicology Annual Meeting, March 18, 1995.

Member of the Planning Committee: Workshop on Benchmark Dose Methodology
Sponsored by the EPA, the American Industrial Health Council and the International Life Sciences Institute, Fairfax, Virginia, September 28-30, 1993.

Session Planner and Co-Chair: Basics of Risk Assessment
In: Conference on the Risk Assessment Paradigm after Ten Years: Policy and Practice Then, Now, and in the Future. Sponsored by the U.S. Army, Air Force, Navy and EPA, Dayton, Ohio, April 5, 1993.

Session Planner and Co-Chair: Basic Risk Assessment: Current Developments
Continuing Education Course at the Society of Toxicology Annual Meeting. New Orleans, Louisiana, March 14, 1993.

Member of the Planning Committee: Risk Assessment of Essential Elements
Sponsored by U.S. ATSDR, EPA and the International Life Sciences Institute. Herndon, Virginia, March 10-12, 1992.

Session Planner and Co-Chair: Improvements in Quantitative Noncancer Risk Assessment
Society of Toxicology. Seattle, Washington. February 27, 1992.

Session Planner and Co-Chair: Neurotoxicity Risk Assessment: State of the Art
Society of Toxicology. Dallas, Texas. March 1, 1991.

Session Planner and Co-Chair: Improvements in Quantitative Noncancer Risk Assessment
Society of Toxicology. San Francisco, California. February 27, 1985.

SERVICE: APPOINTMENTS OR ELECTIONS (Selected)

2017 to… **Associate Editor**
Toxicological Sciences

2016 to… **Secretary**
Board of Directors, Toxicology Forum

2014 to… **Vice President Elect, Vice President, President**
Society of Toxicology's Specialty Section for Regulatory and Safety Evaluation

2012 to… **President and Member**
Board of Directors, Toxicology Education Foundation

2011 to… **Member**
Science Advisory Board of the U.S. Environmental Protection Agency (EPA)

2009 to… **Fellow**
Society for Risk Analysis

2007 to… **Advisor**
African Society of Toxicological Sciences

2007 to… **Fellow**
Academy of Toxicological Sciences

1999 to… **Member and Vice Chair (2003)**
Health Advisory Board. NSF International

1995 to… **Member**
Editorial Board of the Journal "Regulatory Toxicology and Pharmacology"

1994 to… **Member**
Editorial Board of the Journal "Human and Experimental Toxicology"

2016 **Member**
Joint Meeting of the Food and Agriculture Organization of the United Nations (FAO) Panel of Experts on Pesticide Residues in Food and the Environment and the World Health Organization (WHO) Core Assessment Group on Pesticide Residues (JMPR)

2015 **Discussant**
Increasing the manganese reference value despite the growing environmental and health concerns, International Manganese Institute, University of Ottawa, October 14, 2015

2015 **Member**
Joint Meeting of the Food and Agriculture Organization of the United Nations (FAO) Panel of Experts on Pesticide Residues in Food and the Environment and the World Health Organization (WHO) Core Assessment Group on Pesticide Residues (JMPR)

2011-2014 **Member, Co-Chair, Chair**
Membership Committee of the Society of Toxicology

2010-2015 **Chair**
Audit Committee of the Society for Risk Analysis

2010 **Faculty**
Resource person to the Risk Assessment Summer School (RASS) in Calabar, Nigeria, sponsored by the International Union of Toxicology, May 26 to 30

2009-2011 **Vice President Elect, Vice President, President**
Society of Toxicology's Specialty Section on Mixtures

2008-2014 **Member and President**
Council of Mt. Zion Lutheran Church

2008 **Participant, Essential Metals Workshop**
Institute of Population Health, University of Ottawa

2008 **Member**
Green Chemistry Initiative Science Advisory Panel, California Environmental Protection Agency, Department of Toxic Substances Control. San Francisco, CA

2007 **Lecturer**
Shanghai Municipal Center for Disease Control and Prevention (Shanghai CDC), National Continuing Education Training Workshop on Chemical Risk Assessment and Its Development. Shanghai, P.R. China

2006 to 2007 **Member**
The ECOS and DoD Sustainability Workgroup. Department of Defense, Washington, D.C.

2006 **Panelist**
Joint meeting of the dental products panel of the medical devices advisory committee of the CDRH and the peripheral and central nervous system drugs advisory committee of the CDER, Food and Drug Administration, September 6-7

2005 **Rapporteur**
Workshop on Poisons Centres and the Use of Human Data in Consumer Product Risk Assessment, Work Health Organization (WHO). Berlin, Germany. May 9-10, 2005

2004 **Panelist**
Technical workshop on human milk surveillance and biomonitoring for environmental chemicals in the United States. Milton Hershey Medical Center, Penn State, Pennsylvania, September 24 to 26

2003 to 2006 **Member and Chair**
World Wide Web Advisory Committee. Society of Toxicology

2003 **Panel Member**
Mid-Cycle Peer Review for NHEERL's Neurotoxicology Division, U.S. EPA, RTP, NC

2001 to 2005 **Secretary**
Society for Risk Analysis.

2001 **Panel Member**
Peer Review for NHEERL's Neurotoxicology Division, U.S. EPA, RTP, NC

2000 to 2001 **Temporary Advisor**
World Health Organization for Consultation on Uncertainty and Variability: BGVV, Berlin Germany. 9-11 May

2000 to 2001 **Advisor and Rapporteur**

Food Safety in Europe: Risk assessment of chemicals in food and diet. ILSI: Barcelona, Spain

1999 **Member**
Panel for the harmonization of cancer and non-cancer risk assessment. Society of Toxicology. November 1-3

1999 to 2002 **Member**
Oversight Group for the EPA Cooperative Agreement. George Washington University

1999 to 2002 **Vice President Elect, Vice President, President and Councilor**
Society of Toxicology's Specialty Section on Risk Assessment

1998 to 2004 **Executive Director and Treasurer**
Concordia Lutheran Church, Cincinnati, Ohio

1996 to 1998 **Member**
FDA Science Board Subcommittee on Toxicology

1995 **Co-Guest Editor**
EPA Uncertainty Factor Workshop. Human and Ecological Risk Assessment, 1(5):512-662

1995 to 1999 **Member, Treasurer, Vice President, and President (1998)**
Board of Directors of the American Board of Toxicology

1995 to 1996 **President (first elected)**
Dose-Response Specialty Group, Society for Risk Analysis

1995 to 2006 **Scoutmaster, Assistant Scoutmaster**
Troop 133 of Concordia Lutheran Church, Cincinnati, Ohio

1994 to 2007 **Member**
Editorial Board of the Journal Human and Ecological Risk Assessment

1994 to 1995 **Director, Property Board**
Concordia Lutheran Church, Cincinnati, Ohio

1994 to 1995 **Cubmaster**
Pack 133 of Concordia Lutheran Church, Cincinnati, Ohio

1991 to 1994 **President-Elect, President and Councilor**
The Ohio Valley Chapter of the Society of Risk Analysis

1993 **Member**
Committee on Lutheran Mission Ministry Strategy for Greater Cincinnati

1993 **Expert Witness**
OSHA for Informal Public Hearing on the Proposed Rule on Occupational Exposure to Glycol Ethers, Washington, D.C., July 21

1993 **Temporary Advisor and Joint Rapporteur**
World Health Organization for Consultation on Guiding Principles and Methodology for Quantitative Risk Assessment in Setting Exposures Limits: III,

Geneva, Switzerland, June 14-18

1993 **Faculty**
As part of an EPA-sponsored delegation to teach a course on Environmental Management-Risk Assessment Training, Lodz, Poland, March 29-April 2

1993 **Temporary Advisor**
World Health Organization for Consultation on Guiding Principles and Methodology for Quantitative Risk Assessment in Setting Exposures Limits: II, Langen, Germany, January 19-22

1992 **Temporary Advisor and Co-Vice Chair**
World Health Organization for Consultation on Guiding Principles and Methodology for Quantitative Risk Assessment in Setting Exposures Limits: I, Geneva, Switzerland, January 14-17

1990 to 1993 **Vice President and President**
Academy of Kettering Fellows. University of Cincinnati, College of Medicine

1988 to 1992 **Councilor**
The Ohio Valley Chapter of the Society of Toxicology

1988 to 1990 **Vice President (interim), President (first elected) and Councilor**
Society of Toxicology's Specialty Section on Risk Assessment

1987 to 1992 **Chair**
EPA Risk Assessment Forum's technical panel to develop Risk Assessment Guidelines for Non-Cancer Health Effects

1986 to 1993 **Treasurer, Vice President and President**
Lutheran Church of the Cross, Cincinnati, Ohio

1986 to 1994 **Chair and Co-Chair**
Reference Dose (RfD) Work Group of the EPA (with a 1 year break in service)

1986 to 1995 **Charter Member**
Risk Assessment Forum of the EPA

AWARDS (Selected)

2017 **Outstanding Regulatory and Safety Evaluation Paper**. Given for the outstanding published paper in regulatory and safety evaluation during 2016. Regulatory and Safety Evaluation Specialty Section (RSESS). Society of Toxicology. Award was based on a group effort.

2013 **Risk Communication Award.** KidsChemicalSafety.org was honored with the Alliance for Chemical Safety. The risk communication award recognizes a company, organization or individual who has shown outstanding leadership in communicating about chemical risks. Award was based on a group effort.

2013 **Best Charity Award.** Toxic Chemical Safety awarded for recognition as one of the 'BEST' charities in America. Presented upon rigorous independent review for

being able to certify, document and demonstrate on an annual basis that met the highest standards of public accountability, program effectiveness, and cost effectiveness.

2009 **International Achievement Award.** In recognition of his outstanding contributions nationally and internationally to the advancement of regulatory science, policy, and methodologies in risk assessment and risk management and for his distinguished and creative participation in regulatory organizations and in decisions of ultimate public health significance worldwide. International Society of Regulatory Toxicology and Pharmacology.

2008 **Outstanding Risk Assessment Paper**. Given for the outstanding published paper in 2007 demonstrating an application of risk assessment. Risk Assessment Specialty Section, Society of Toxicology. Award was based on a group effort.

2008 **The Independent Charities Seal of Excellence.** Given to the members of

Independent Charities of America and Local Independent Charities of America that have, upon rigorous independent review, been able to certify, document, and demonstrate on an annual basis that they meet the highest standards of public accountability, program effectiveness, and cost effectiveness. These standards include those required by the US Government for inclusion in the Combined Federal Campaign, probably the most exclusive fund drive in the world. Of the 1,000,000 charities operating in the United States today, it is estimated that fewer than 50,000, or 5 percent, meet or exceed these standards, and, of those, fewer than 2,000 have been awarded this Seal. Award was based on a group effort.

2007 **Service to the Voluntary Children's Chemical Evaluation Program (VCCEP)**. Given for service as chair and participant on external review panels. Toxicology Excellence for Risk Assessment, Cincinnati, Ohio.

2003 **Arnold J. Lehman Award.** An award in recognition of major contributions to risk assessment and the regulation of chemical agents, including pharmaceuticals. Society of Toxicology.

2002 **Environmental Stewardship Award.** An award issued in gratitude for serving on the C8 Assessment of Toxicity Team as a toxicologist in the development of toxicity factors and screening levels. West Virginia, Department of Environmental Protection. Award was based on a group effort.

2000 **Key Risk Award.** Environmental Studies Topic. Links2Go. *TERA*'s International Toxicity Estimates for Risk (*ITER*) database won this award by being 7th most accessed environmental web site in the world. Award was based on a group effort.

1998 **Outstanding Risk Assessment Paper**. Given for the outstanding published paper in risk assessment during 1997. Risk Assessment Specialty Section. Society of Toxicology. Award was based on a group effort.

1995 **In Appreciation.** An award for outstanding service and scientific contribution to the Environmental Protection Agency and to United States Government.

1994 **Special Achievement.** An award for noteworthy contribution as a member of the Risk Characterization Team towards an EPA-wide workshop on risk characterization.

1992 **Bronze Medal.** An award for outstanding service in the review of EPA's 503 Sludge Regulations. Award was based on a group effort.

1992 **OHEA Peer Award for Scientific Achievement.** An annual peer award for scientific achievement in EPA's Office of Health and Environmental Assessment

1992 **RfD/RfC Work Group Appreciation Award.** For sustained superior leadership of and scientific contributions to EPA's Reference Dose/Reference Concentration Work Group.

1991 **Bronze Medal.** An award for outstanding service in the development of EPA's Integrated Risk Information System (IRIS). Award was based on a group effort.

1990 **Special Achievement.** An EPA award for ensuring ORD's successful involvement in regulatory support issues with EPA's Office of Pesticides and Toxic Substances.

1988 **Special Achievement.** An EPA award for resolution of generic issues associated with the minimum data base needed to estimate Reference Doses (RfDs).

1987 **Special Achievement.** An award for further development of the EPA's -- Integrated Risk Information System (IRIS).

1986 **Bronze Medal.** An EPA award "for outstanding service in the organization and review of Risk Reference Doses (Acceptable Daily Intakes) and the science from which they are derived." Award was based on a group effort.

1984 **Tribute of Appreciation.** An EPA award for the "Development of Risk Assessment Guidelines."

1980 **Bronze Medal.** An EPA award recognizing "Outstanding dedication, completion of tasks and contributions to environmental protection in the development of Water Quality Criteria." Award was based on a group effort.

AFFILIATIONS

I am a member of the American Association for the Advancement of Science **(AAAS)**, the Society for Risk Analysis **(SRA)**, and the Society of Toxicology **(SOT).** I am a Diplomate of the American Board of Toxicology (October 1985) and was recertified in 1990, 1995, 2000, 2005, 2010, and 2015. I am an elected Fellow of the Academy of Toxicological Sciences and the Society for Risk Analysis.

REFERENCES

References will be readily supplied upon request.