

# **M.E. Ginevan & Associates, LLC**

**Statistical Consultation and Mathematical Modeling for the Health and Environmental Sciences**

## **Michael E. Ginevan, Ph.D. Principal Scientist**

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### **Professional Profile**

Dr. Michael E. Ginevan is the President of M.E. Ginevan and Associates, LLC. Dr. Ginevan has more than 35 years experience in the application of statistics and computer modeling to problems in public health and the environment and in the conduct of environmental, epidemiologic, and risk assessment studies. He is the author of "Statistical Tools for Environmental Quality Measurement," and over 70 other publications in the areas of statistics, computer modeling, epidemiology, and environmental studies.

In addition to his broad statistical background, he has had extensive training and research experience in the biological sciences, including epidemiology, exposure science, ecology, and genetics. He has also been an effective interdisciplinary project leader and manager in academia, government, and private industry, and in a diversity of problem areas, including biostatistics, epidemiology, toxicology, risk assessment, and environmental monitoring. Dr. Ginevan is adept at making intricate statistical analyses understandable to persons with relatively little mathematical knowledge and is effective in communicating complex scientific issues to lay audiences.

Dr. Ginevan is a founder and past Secretary of the American Statistical Association (ASA) Section on Statistics and the Environment, a recipient of the Section's Distinguished Achievement Medal, and a past Program Chair of the ASA Conference on Radiation and Health. He is a Charter Member of the Society for Risk Analysis. He has served on numerous review and program committees for ASA, the U.S. Department of Energy, the U.S. Nuclear Regulatory Commission, the National Institute for Occupational Safety and Health, the National Cancer Institute, and the U.S. Environmental Protection Agency. He also served as a member of the National Academy of Sciences Committee on Health Risks of the Ground Wave Emergency Network.

### **Credentials and Professional Honors**

Ph.D., Mathematical Biology, University of Kansas, 1976  
M.S., Zoology, University of Massachusetts at Amherst, 1971  
B.S., Biology, State University of New York at Albany, 1968

Distinguished Achievement Medal, American Statistical Association Section on Statistics and the Environment, 1993; Sigma Xi, 1978; University of Kansas Dissertation Fellowship, 1975.

Michael Ginevan, Ph.D.

## **Prior Experience**

Principal Scientist, Exponent, 2004-2006

Vice President and Principal Scientist, Blasland Bouck and Lee Inc., 2002–2004

Principal, M.E. Ginevan & Associates, 1991–2002

Deputy Director, Office of Epidemiology and Health Surveillance, United States Department of Energy, 1991–1993

Principal Scientist, Biostatistics and Epidemiology, RiskFocus Division, Versar Inc., 1990–1991

Senior Scientist, Biostatistics and Epidemiology, RiskFocus Division, Versar Inc., 1988–1990

Senior Science Advisor, Biostatistics, Environ Corporation, 1987–1988

Biostatistician, United States Nuclear Regulatory Commission, 1982–1986

Assistant Statistician and Group Leader, Human Health Risk Analysis Group, Division of Biological and Medical Research, Argonne National Laboratory, 1978–1982

Research Associate, Environmental Research Laboratory, Center for Research Inc., University of Kansas, 1976–1978

## **Professional Affiliations**

- American Association for the Advancement of Science, (member, 1975–present)
- American Statistical Association, (member, 1976–present)
- Sigma Xi, (member, 1975–present)
- Society for Epidemiologic Research, (member, 1983–present)
- Society for Risk Analysis, (Charter Member)
- Society for Toxicology and Applied Pharmacology, (member, 2000-present)
- The Toxicology Forum (member, 2009-present)
- International Society of Exposure Science (member, 2013-present)

## **Consulting and Advisory Appointments**

- Member, Board of Directors, The Toxicology Forum (2016-)
- Peer Reviewer, Mickey Leland National Urban Air Toxics Research Center (2008-2010)
- Peer Reviewer, EPA Superfund Preliminary Remediation Goals for Radionuclides in Outdoor Surfaces (SPRG) Electronic Calculator (2008)
- Peer Reviewer, EPA draft guidance document entitled: “Guidance for choosing a sampling design for Environmental Data Collection (EPA QA/G-5S)” (2001)
- Program Chair Elect/Program Chair: American Statistical Association Section on Risk Analysis (1999–2001)
- Member, Strategic Planning Committee, ASA Section on Statistics and the Environment (1994–1995)
- Member, Planning Committee, 11<sup>th</sup> ASA Conference on Radiation and Health (1993–1994)

Michael Ginevan, Ph.D.

- Member, Steering Committee, ASA/NSF Ethics and Statistical Experts Project (1993–1995)
- Councilor, Washington Area Chapter, Society for Risk Analysis (1990–1992)
- Secretary, ASA Section on Statistics and the Environment (1990)
- Member, Planning Committee, 9<sup>th</sup> ASA Conference on Radiation and Health (1989–1990)
- Chairman, 8<sup>th</sup> ASA Conference on Radiation and Health (1987–1989)
- Vice Chairman, ASA Committee on Statistics and the Environment (1987–1989)
- Member, ASA Committee on Nuclear Regulatory Research (1985–1990)
- Vice Chairman, 7<sup>th</sup> ASA Conference on Radiation and Health (1986–1987)
- Member (representing the Society for Risk Analysis), Planning Committee for the 9<sup>th</sup> Symposium on Statistics, Law, and the Environment (1986)
- Consultant, Tabershaw Occupational Medicine Associates, Study design: occupational health study of workers exposed to low level electromagnetic fields (1981)
- Member, Peer Oversight Committee, U.S. Environmental Protection Agency Terrestrial Biomonitoring Program (1978–1981)
- Planning Group, U.S. Environmental Protection Agency Terrestrial Biomonitoring Program (1977)
- Consultant, Kansas State Attorney General's Office, Furnished advice and testimony on quantitative and ecological aspects of environmental litigation (1977–1978)

### **Science Advisory Boards/Panels**

- Member, National Research Council, Committee on Health Risks of the Ground Wave Emergency Network (1990–1993)
- Consultant, U.S. Environmental Protection Agency, Science Advisory Board, Radiation Advisory Committee. Review of the Multi-Agency Radiological Laboratory Analytical Protocols Manual (MARLAP) (2002–2003)
- Consultant, U.S. Environmental Protection Agency, Science Advisory Board, Radiation Advisory Committee. Review of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (1996–1998)
- Member, Radon Mitigation Subcommittee, U.S. Environmental Protection Agency, Science Advisory Board, Radiation Advisory Committee (1987–1989)

### **Editorships and Editorial Review Boards**

- Editorial Board, *Regulatory Toxicology and Pharmacology* (1996–present)
- Associate Editor, *Environmental and Ecological Statistics* (1994–1998)

Michael Ginevan, Ph.D.

## **Peer Reviewer**

- *Environmental Health Perspectives*
- *Regulatory Toxicology and Pharmacology*
- *Environmental and Ecological Statistics*
- *Environmetrics*
- *Science*
- *American Statistician*
- *Risk Analysis*
- *Environmental Science and Technology*
- *American Journal of Epidemiology*
- *Photogrametric Engineering and Remote Sensing*

## **Experience Summaries**

### *Expert Testimony and Litigation Support*

Dr. Ginevan has provided affidavits, expert reports, and both deposition and trial testimony in a broad array of matters. These include:

- Evaluation of patient demographic data, Medicare claims data, and medical test data for cardiac catheterizations from a cardiology practice in Texas. Analyses showed that the population being treated in the practice had a high burden of pre-existing disease, and that the frequency of false positive results in the cardiac catheterizations was similar to that in other medical practices in the area and was also similar to national rates. Taken together these facts showed that claims, from both the State and Federal Governments, of overbilling Medicare, had no factual basis.
- Evaluation of dioxin data and sampling protocols in Nitro, West Virginia. Analyses showed that plaintiff data did not demonstrate either pervasive dioxin contamination in the Nitro area or significantly elevated dioxin exposures in Nitro residents.
- Evaluation of formaldehyde sampling protocols, formaldehyde levels and potential exposures to persons, displaced by Hurricane Katrina, who resided in FEMA trailers. These analyses demonstrated that there was little evidence of high exposures in occupied trailers and suggested a number of deficiencies in plaintiff sampling protocols.
- Evaluation of contamination in buildings near the World Trade Center (WTC) disaster site. The allegation was that the buildings had to be demolished because they were contaminated at a level that would preclude remediation. Analysis showed that much of the contamination was preexisting and had nothing to do with the WTC disaster.
- Evaluation of biotechnology data to determine whether certain patented protocols produced higher transformation efficiencies. The conclusion was that the patented protocols conferred no advantage.
- Evaluation of the relative success of cattle embryo implantation using different types of syringe. This analysis showed that when the initial quality of embryos was taken into account, the allegedly defective syringe was no different, in terms of implantation success, than other models of syringe that had been used for the same purpose.

Michael Ginevan, Ph.D.

- Evaluation of PCB risks from consumption of fish from Watts Bar Lake. This evaluation showed that the risks from fish consumption were small and were far exceeded by the risks involved in catching said fish.
- Evaluation of respiratory disease complaint data from plaintiffs who lived in allegedly “sick” buildings. This analysis showed that the frequency of respiratory disease was no higher in the plaintiffs than in the general population.
- Evaluation of cancer risk modeling done by a plaintiff’s expert plus evaluation of environmental sampling data from a different plaintiff’s expert. These evaluations showed that claims of excess cancer risk from ethylene dibromide in ground water had no scientific basis.
- Analysis of water quality data that showed that a riverside feedlot was contaminating the river.

Dr. Ginevan has also provided non-testifying litigation support in numerous cases. Much of this work is conducted under confidentiality agreements, but general areas include evaluation of both plaintiff and defense expert reports to identify both factual and quantitative shortcomings, evaluation of the potential size of plaintiff classes based on the alleged disease entities and exposures, evaluation of the quantitative credibility of plaintiff claims using quantitative risk and exposure modeling, and identifying key quantitative strategies that can be used in defense efforts.

#### *Statistical Research*

- Analyzed the effect standardization of chemical concentration data has on subsequent Principal Component and other multivariate analyses of these data. These analyses showed that standardization distorts the information in the data and should not be used.
- Investigated the impacts that logarithmic dose transformation can have on analyses of epidemiologic data.
- Evaluated statistical strategies for apportioning the risks due to multiple environmental exposures.
- Developed procedures based on log-ratio statistics for evaluation of the likely sources of environmental contaminants. This work was published in a book chapter entitled “Statistical Tools for Ratio Data” in the book *Introduction to Environmental Forensics*.
- Developed lifetable-based modeling tools for prediction of the risks of less-than-lifetime and intermittent exposures to asbestos, radiation, and other carcinogens and for the evaluation of the relative contributions of cigarette smoking and radon exposure to subsequent lung cancer risk.
- Formulated new statistical methods for estimation of benchmark doses for cholinesterase inhibitors to aid regulatory decision making on organophosphorus pesticides.
- Proposed new methods for exploratory analysis of time-series based epidemiology data for use in estimating the health effects of air pollution.
- Defined advanced bootstrap methods for confidence intervals and hypothesis tests involving non-normal distributions for environmental contamination and human exposure data, and has developed analytic tools for the planning of Monte Carlo simulation studies.
- Developed procedures for evaluating environmental data when large numbers of observations are non-detects.

Michael Ginevan, Ph.D.

- Developed risk-based methods for planning the sampling and remediation of hazardous waste sites.
- Defined new modeling methodology for the prediction of toxicological equivalence factors for PCB's and dioxins.
- Developed robust regression methods for use in cross-sectional epidemiologic studies.
- Defined new procedures for the comparison of death rates across populations.
- Developed statistical techniques for the evaluation of environmental radiation survey data and procedures for the reconstruction of nuclear worker dosimetry.

### *Exposure Assessment*

- Evaluated the impact of concentrations of pesticide metabolites on exposure estimates for organophosphorous pesticides.
- Conducted exposure studies for assessing exposure of Allied troops and civilian populations to Agent Orange and dioxin as a result of defoliation missions conducted during the Vietnam War.
- Evaluated formaldehyde concentration data from FEMA trailers used after Hurricane Katrina to determine the probable formaldehyde exposures to residents of these trailers.
- Evaluated the proposed methodology for assessing exposure of Allied troops to Agent Orange and dioxin as a result of defoliation missions conducted during the Vietnam War.
- Evaluated radiation exposures resulting from cleaning drill pipe used in the oil industry.
- Evaluated possible carcinogen exposures to workers in two manufacturing facilities.
- An author and reviewer for the book "Residential Exposure Assessment: A Sourcebook" and an author and reviewer for the book "Occupational and Residential Exposure Assessment for Pesticides."
- For the Agricultural Reentry Task Force, analyzed exposure data for agricultural workers and developed predictive models for worker exposure.
- Developed models for residential exposure resulting from pesticide use for two major pesticide industry task forces including analysis of patterns of pesticide deposition in indoor environments and development of Monte Carlo methods for prediction of the distribution of pesticide use events over time. This work was also presented as part of a workshop on Monte Carlo methods for predicting exposure over time at the 1998 Society for Risk Analysis Annual Meeting.
- Developed statistical protocols for chamber based exposure experiments in the pesticide industry to provide data for predictive models of human exposure resulting from contacts with indoor surfaces.
- Worked with the Federal Aviation Administration to develop exposure models for tobacco smoke and other pollutants aboard airliners.
- Worked with the Center for Indoor Air Research to develop improved exposure models for indoor air pollution resulting from environmental tobacco smoke (ETS). This effort included analysis of a large 16-city study database, collected by Oak Ridge National Laboratory, of exposure to ETS in both the work and home environment. These analyses were focused on developing markers of exposure and on describing personal characteristics that influence exposure levels. As a part of the second phase of this study, developed Monte Carlo models for ETS exposure in both the home and work environments.

Michael Ginevan, Ph.D.

- At the U. S. Department of Energy, started the Radiation Dosimetry Working Group to develop comparable dosimetric paradigms across the various radiation worker cohorts and worked with the industrial hygiene departments at a number of national labs to develop chemical exposure metrics for DOE workers.
- Worked with the Chemical Manufacturers Association on a major project to develop Monte Carlo methods for exposure assessment for chemicals in the environment.
- At the U.S. Nuclear Regulatory Commission, evaluated dosimetry data from civilian nuclear power plant workers and analyzed historical uranium miner data to reevaluate dosimetry estimates in these workers.
- Worked with the staff of the Center for Human Radiobiology at Argonne National Laboratory to develop models for radon exposure in radium dial painters.

### *Epidemiology*

- Review of epidemiologic studies of Vietnam veterans to determine the extent to which adverse health effects are associated with herbicide exposure. Co-author of an extensive review of the Air Force Health Study of Veterans who were involved in Operation Ranch Hand, which was the major herbicide spray program for the Vietnam War.
- Reviewed the alleged association between intrauterine phthalate exposure and reduced anogenital distance in human male infants. Showed that the alleged association was the result of faulty quantitative analysis.
- Reviewed the epidemiologic literature on the association between the use of the Cox-2 inhibitors Celebrex and Bextra and heart attacks.
- Conducted extensive reviews of literature on asbestos exposure and subsequent risks of lung cancer and mesothelioma.
- Reviewed a variety of epidemiologic topics, including the effects of pesticide exposure on human health, cancer risks of electric field exposure and studies of the cancer risk associated with water chlorination.
- Performed epidemiologic investigations of the possible association between particulate air pollution and human health, and of cancer clusters in occupational exposure settings.
- Provided a comprehensive review of an occupational epidemiology study of cancer and exposure to radiation and chemicals conducted at the Rocketdyne Division of Boeing North American and assisted Boeing in presenting the results of this review to their workers.
- Served as Deputy Director of the Office of Epidemiology and Health Surveillance at the U. S. Department of Energy (DOE). Developed a blueprint for the DOE Health Surveillance System and lead the effort to complete the DOE Comprehensive Epidemiologic Data Resource (CEDR). Participated in "rapid response studies" of alleged cancer clusters and alleged sick building syndrome at DOE facilities.
- Served as the principal expert in epidemiology at the U.S. Nuclear Regulatory Commission (NRC). Investigated claims of cancer clusters alleged to have been caused by nuclear power plants. Developed protocols for epidemiology studies of nuclear power plant workers and, using data from uranium miners, modeled the risks of lung cancer caused by exposure to radon daughters (radioactive materials) and cigarette smoking.
- Conducted statistical evaluations of case-control studies of leukemia and diagnostic X-rays.
- Conducted a cross-sectional study of environmental pollution and human birth weights.

Michael Ginevan, Ph.D.

- Provided a comprehensive review of the epidemiology literature on the effects of electromagnetic fields on human health as an author of the National Research Council Report, "Assessment of the Possible Health Effects of Ground Wave Emergency Network".

#### *Risk Analysis and Probability of Causation Evaluations*

- Coauthor of a paper on methods of risk apportionment for multiple potential causal factors.
- Conducted an extensive risk assessment of the relationship between the presence of soft drink vending machines in schools and the risk of obesity in the student population. This work was published in the journal Risk Analysis.
- Developed life-table based models to evaluate the relative contribution of asbestos exposure at different times in life to subsequent risks of lung cancer and mesothelioma.
- Extensive involvement in the analysis of toxicological data sets and in cancer risk modeling for toxic materials.
- Evaluated data on railroad tank car failure to develop risk models for different car type / use pattern scenarios.
- Conducted large ecological risk assessment studies for pesticides including the development of statistical analyses and Monte Carlo models to predict the risks that a pesticide might pose to the reproductive success of birds. Conducted analyses of data from both mesocosm and fish life cycle studies to determine the environmental risks posed by an herbicide.
- Broadly involved in development of chemical risk estimates through the analysis of rodent bioassay data.
- Modeled the risks of indoor air pollution and radiation exposure to airliner passengers, and performed probability of causation calculations in support of litigations defending alleged radiation injury.
- Provided cancer risk modeling for less-than-lifetime exposures, and probability of causation calculations in support of toxic tort litigations.
- Led risk studies of the risks of electric field exposure in office buildings, and directed two large risk assessments, one for coal gasification and the other for advanced battery technologies.
- Developed models for monitoring of nuclear power plant emissions.
- Developed models for canister failure in high level radioactive waste storage facilities.

#### *Environmental Characterization and Monitoring*

- Dr. Ginevan's book "*Statistical Tools for Environmental Quality Measurement*" deals with the statistical bases of environmental characterization studies.
- Recent projects include:
  - Statistical analysis of dioxin contamination at several former industrial sites.
  - Evaluation of chemical concentrations in dust samples from buildings adjacent to the World Trade Center (WTC) Site to determine whether or not there is a consistent chemical "signature" in this dust, evaluations of PCB and dioxin congener profile data to determine the likely source of contamination
  - A comprehensive evaluation of the National Antimicrobial Monitoring System (NARMS) designed to assess its value in critical decision making.



- Other projects:
  - Design of monitoring programs for environmental residues of pesticides.
  - Developed survey designs for pesticide residues in food products.
  - Developed statistical designs for indoor air monitoring studies.
  - Provided reviews of the adequacy of the environmental sampling programs at several hazardous waste sites, including Superfund sites.
  - Reviewed EPA guidance materials on the Data Quality Objectives / Data Quality Assessment Process (DQO/DQA).
  - Acting as a consultant to EPA's Science Advisory Board, provided reviews of the Multi-Agency Radiological Laboratory Analytical Protocols Manual (MARLAP) and the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).
  - Provided statistical advice to the EPA in the areas of monitoring ambient air quality and, as a member of a Science Advisory Board subcommittee, indoor radon.
  - Planned air monitoring programs to verify incinerator performance.
  - Provided statistical design for a large air quality survey for Valdez, Alaska.
  - Participated in the planning and oversight of the EPA's terrestrial biomonitoring program.

#### *Databases and Data Quality Objectives*

- Evaluated historical databases related to herbicide use, troop locations and military action during the Vietnam War and helped translate these data into a modern relational database.
- Evaluated records quality in a large asbestos exposure database to determine its usefulness in product liability litigation.
- Assisted the pesticide industry in development of a large pesticide use database and worked with the Agricultural Reentry Taskforce in developing a large database of worker exposure information.
- Played a central role in the development of the pesticide residue database used in an ecological risk assessment study, and was also responsible for the development and implementation of both analytic and graphical statistical procedures for data exploration and quality assurance. The actual database included more than 20,000 pesticide residue measurements.
- At DOE, managed development of the Comprehensive Epidemiologic Data Resource (CEDR) system from 1991 to 1993. The CEDR database system was developed by the U.S. Department of Energy (DOE) to make all of the data collected by the DOE epidemiologic studies available to the scientific community. These data include 12 distinct studies, and more than 30,000 individual records. Played a major role in defining the information necessary to make CEDR a "user friendly" system and in defining quality assurance criteria for these data. Today, CEDR is complete and is available through the Internet.
- At the U. S. Nuclear Regulatory Commission, planned development of a dosimetry database for nuclear power plant workers and developed statistical methods that might be used to better estimate worker exposure from the resulting data.

Michael Ginevan, Ph.D.

## **Michael E. Ginevan: Bibliography**

Ginevan, M.E., D.K. Watkins, J.H. Ross. 2015. Exposure estimates in epidemiological studies of Korean veterans of the Vietnam War. *Int. J. Epidemiol.* 44: 355-357.

Scialli, A.R., D.K. Watkins, and M.E. Ginevan. 2015, Agent Orange Exposure and 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) in Human Milk. *Birth Defects Research (Part B)* 104:129–139.

Ross, J.H., A. Hewitt, J. Armitage, K. Solomon, D.K. Watkins, and M.E. Ginevan. 2015. Handler, bystander and reentry exposure to TCDD from application of Agent Orange by C-123 aircraft during the Vietnam War. *Science of the Total Environment* 505: 514–525

Ross, J.H., A. Hewitt, J. Armitage, K. Solomon, D.K. Watkins, and M.E. Ginevan. 2015. Exposure to TCDD from Base Perimeter Application of Agent Orange in Vietnam. *Science of the Total Environment*: 511, 82–90.

Armitage, J.M. M.E. Ginevan, A. Hewitt, J.H. Ross, D.K. Watkins, K.R. Solomon. 2015. Environmental fate and dietary exposures of humans to TCDD as a result of the spraying of Agent Orange in upland forests of Vietnam. *Science of the Total Environment*: 506, 621–630.

Ross, J.H., and M.E. Ginevan. 2014. Biomonitoring of Exposure to Organophosphate Pesticides in New York City. *Environmental Health Perspectives* 122: A 178.

Ginevan, M.E., J.H. Ross and D.K. Watkins. 2014. Reply to “Agent Orange exposure modeling: fallacies and errors”. *Journal of Exposure Science and Environmental Epidemiology* 24: 445–446.

Chen, L., Zhao, T., Ross, J., Ginevan, M., Vega, H., Krieger, R. (2013). Absorption and excretion of organophosphorous insecticide biomarkers of malathion in the rat: Implications for overestimation bias from environmental biomonitoring. *Regul. Toxicol. Pharm.* 65, 287–293.

Ginevan, M.E. 2012. Discussion for “Are fine particulates killing Californians?” In *JSM Proceedings, Section on Risk Analysis – JSM 2012 Discussants*. Alexandria, VA: American Statistical Association. 1230-1236.

Krieger R.I, L. Chen , M. Ginevan, D. Watkins b, R.C. Cochran, J.H. Driver, and J.H. Ross. 2012. Implications of estimates of residential organophosphate exposure from dialkylphosphates (DAPs) and their relevance to risk. *Regulatory Toxicology and Pharmacology* 64: 263–266.

Ginevan, M.E. and D.K. Watkins. 2012. Radon. In *Encyclopedia of Environmetrics Second Edition*, A.-H. El-Shaarawi and W. Piegorisch (eds). John Wiley & Sons Ltd, Chichester, UK, pp.2101-2102. DOI: 10.1002/9780470057339.var004.pub2.

Buffler, P.A., M.E. Ginevan, J.S. Mandel, and D.K. Watkins. 2011. The Air Force Health Study: An Epidemiologic Retrospective. *Annals of Epidemiology*, 21, 673–687.

Michael Ginevan, Ph.D.

Ginevan, M.E. and D.K. Watkins. 2010. Logarithmic dose transformation in epidemiologic dose-response analysis: Use with caution. *Regulatory Toxicology and Pharmacology*. 58:336–340.

Ginevan, M.E., D.K. Watkins, J.H. Ross and R.A. O’Boyle. 2009. Assessing exposure to allied ground troops in the Vietnam War: A quantitative evaluation of the Stellman Exposure Opportunity Index model. *Chemosphere*. 75:1512–1518.

Ginevan, M.E., J.H. Ross and D.K. Watkins. 2009. Assessing exposure to allied ground troops in the Vietnam War: A comparison of AgDRIFT and Exposure Opportunity Index Models. *Journal of Exposure Science and Environmental Epidemiology*. 19:187-200.

Barraj, L.M., N.L. Tran, M. Goodman and M.E. Ginevan. 2008. Perspective: Risk apportionment and disease intervention strategies. *Risk Analysis*. 28:477-486.

Ginevan, M. E. 2008. Radon. In: *Encyclopedia of Quantitative Risk Assessment and Analysis*. E. Melnick and B. Everitt, (Eds). John Wiley & Sons Ltd, Chichester, UK. pp 1409-1411.

Ginevan, M.E. 2007. Statistical Tools for Ratio Data. In: *Introduction to Environmental Forensics*. B. Murphy and R.D. Morrison, (Eds). Elsevier Inc. pp 185-206.

Ginevan, M.E. 2006. Bootstrap Estimators for the Distribution of the Arithmetic Mean of Multiply Left-Censored Data. Invited paper 2006 International Environmetrics Society Annual Meeting, Kalmar Sweden. +

Ginevan, M.E. and D.K. Watkins. 2006. Dose-response errors and detection of biological thresholds. *American Statistical Association 2006 Annual Meeting Abstracts*. pg 275. +

Tardiff, R.G., M.L. Carson, and M.E. Ginevan. 2006. Updated weight of evidence for an association between adverse reproductive and developmental effects and exposure to disinfection byproducts. *Regulatory Toxicology and Pharmacology* 45: 185-205.

Ginevan, M.E. 2005. Using log-ratio-log plots to assess the association between chemical species in environmental samples. *Proceedings of the 2005 American Statistical Association Annual Meeting*: pp 2473-2476.

Forshee R.A., M.L. Storey, and M.E. Ginevan. 2005. A risk analysis model of the relationship between beverage consumption from school vending machines and risk of adolescent overweight. *Risk Analysis*. 25:1121-1135.

Whitmyre G. K. J.H. Ross, M.E. Ginevan and D. Eberhart. 2005. Risk-based restricted entry intervals. In: *Occupational and Residential Exposure Assessment for Pesticides*. C.A. Franklin and J.P. Worgan (Eds). John Wiley, NY. pp 45–69.

Michael Ginevan, Ph.D.

Karch, N.J., D.K. Watkins, A.L. Young, and M.E. Ginevan. 2004. Environmental fate of TCDD and Agent Orange and bioavailability to troops in Vietnam. *Organohalogen Compounds*. 66:3689-3694.

Splitstone D.E. and M.E. Ginevan. 2004. A Bayesian approach to determining the “paternity” of environmental contamination. Proceedings of the 15th Annual Conference of TIES, The International Environmetrics Society, Portland, Maine, June 28–July 1, 2004. +

Ginevan M.E. Soft drinks and obesity. *Journal of Pediatrics*. 2004. 144(4): 555–556.

Lamb, J.C, B.H. Neal, M.E. Ginevan, J.S. Bus, and W.M. Mahlborg. 2003. Herbicide Effects on Embryo Implantation and Litter Size. *Environmental Health Perspectives* 111. A450.

Ginevan, M.E. 2003. Bootstrap-Monte Carlo Hybrid Upper Confidence Bounds For Right Skewed Data. Proceedings of the 2003 American Statistical Association Annual Meeting. pp 1609-1612

Ginevan, M.E. and D.E. Splitstone. 2003. *Statistical Tools for Environmental Quality Measurement*. Chapman & Hall / CRC. 352 PP.

Ginevan, M.E. 2002. Assessment of the National Antimicrobial Monitoring System (NARMS) and its value in critical decision making. *International Journal of Infectious Diseases*. 6:3S8-3S15.

Ginevan, M.E. and D.E. Splitstone. 2002. Bootstrap upper bounds for the arithmetic mean of right-skewed data, and the use of censored data. *Environmetrics* 13:443-464.

Ginevan, M.E. 2001. *Radon*. In: *Encyclopedia of Environmetrics*. John Wiley, NY.

Price, P., M. E. Ginevan and T. Barry. 2001. Qualitative and Quantitative Uncertainty Analysis. In: *Residential Exposure Assessment: A Source Book*. S.R. Baker, J. Driver and D. McCallum. (Eds). Kluwer Academic/Plenum. NY. pp 313-330.

Ginevan, M.E. 2001. Using Statistics in Health and Environmental Risk Assessments. In: *A Practical Guide to Understanding, Managing, and Reviewing Environmental Risk Assessment Reports*. S.L. Benjamin and D.A. Belluck (Eds). Lewis Publishers, New York. pp 389-411.

Graves, C.G., M.E. Ginevan, R.A. Jenkins and R.G. Tardiff. 2000. Doses and lung burdens of environmental tobacco smoke constituents in nonsmoking workplaces. *Journal of Exposure Analysis and Environmental Epidemiology*. 10:365-377.

LaKind, J.S., R.A. Jenkins, D.Q. Naiman, M.E. Ginevan, C.G. Graves and R.G. Tardiff. 1999. Use of Environmental Tobacco Smoke Constituents as Markers for Exposure. *Risk Analysis* 19: 359-373.

Michael Ginevan, Ph.D.

LaKind, J.S., M.E. Ginevan, D.Q. Naiman, A.C. James, R.A. Jenkins, M.L. Dourson, S.P. Felter, C.G. Graves and R.G. Tardiff. 1999. Distribution of exposure concentrations and doses for constituents of environmental tobacco smoke. *Risk Analysis* 19:375-390.

LaKind, J.S., C.G. Graves, M.E. Ginevan, R.A. Jenkins, D.Q. Naiman and R.G. Tardiff. 1999. Exposure to environmental tobacco smoke in the workplace and the impact of away-from-work-exposure. *Risk Analysis* 19:349-358.

Ginevan, M.E. and J.H. Driver. 1998. Modeling Event Distributions in Time: The Case of Correlated Occurrences. Workshop on Probabilistic Methods in Risk Assessment. Society for Risk Analysis Annual Meeting.

Wilkinson, C.F., J.H. Driver, G.K. Whitmyre and M.E. Ginevan. 1998. Encyclopedia of Toxicology (contributing authors). National Library of Medicine, Bethesda, MD.

Ginevan, M.E. and D.E. Splitstone. 1997. Improving remediation decisions at hazardous waste sites with risk-based geostatistical analysis. *Environmental Science and Technology*. 31:92A-96A.

Ginevan, M.E. 1997. The Fallacy of Distributional Fitting. In Monte Carlo Modeling. Workshop on Probabilistic Methods in Risk Assessment. Society for Risk Analysis Annual Meeting.

Driver, J. H., M. E. Ginevan and G. K. Whitmyre. 1996. Estimation of potential human health risks associated with dietary exposure to pesticide residues in agricultural commodities: A case study illustrating methods of distributional analysis. *Risk Analysis*. 16:763-771.

Ginevan, M.E. and C.G. Graves. 1996. Why linearized multistage confidence limits from Global 86 and Global 92 cannot be used to calculate the LED10, the point of departure in the proposed cancer guidelines. Society for Risk Analysis Annual Meeting Program Abstracts. 102.+

Ginevan, M.E. and D.E. Splitstone, 1995. Risk-based geostatistical analysis of hazardous waste sites: A tool for improving remediation decisions. In: Proceedings of "Challenges and Innovations in the management of hazardous waste." Air and Waste Management Association. Pittsburgh, PA. VIP-52. pp 540-546.

Ginevan, M.E. 1995. Suspended particulates and daily mortality in Santa Clara County: An exploratory approach. *Inhalation Toxicology* 7: 803. Also in: Colloquium on Particulate Air Pollution and Human Mortality and Morbidity. University of California Irvine, Air Pollution Health Effects Laboratory. Report 94-02. P1.4.+

Curry, K.K., D.J. Brookman, G.K. Whitmyre, J.H. Driver, R.J. Hackman, P.J. Hakkinen and M.E. Ginevan. 1994. Personal exposures to toluene during use of nail lacquers in residences: results of a preliminary study. *Journal of Exposure Analysis and Environmental Epidemiology* 4:443-456.

Michael Ginevan, Ph.D.

Ginevan, M.E. 1994. Monte Carlo Simulation: How Many Replications Are Enough? Society for Risk Analysis Annual Meeting Program Abstracts. 88.+

Putzrath, R.M. and M.E. Ginevan, 1994. Improving toxic equivalence factors for PCB's. Proceedings of the Superfund XV Conference. Hazardous Materials Control Resources Institute, Washington, DC. pp 1457-1463.

Ginevan, M.E. and R.M. Putzrath. 1994. The Health Risk Assessment Process: Implications for Site Sampling. In: Proceedings of "Cost-efficient acquisition and utilization of data in the management of hazardous waste sites." Air and Waste Management Association. Pittsburgh, PA. VIP-36. pp 259-267.

Ginevan, M.E. 1993. Bounding the mean concentration for environmental contaminants when all observations are below the limit of detection. American Statistical Association 1993 Proceedings of the Section on Statistics and the Environment. pp 123-128.

Tenforde, T.S., C.J. Conti, H.K. Florig, O.P. Gandi, M.E. Ginevan, G.H. Harrison, M.M. Henderson, J.R. McDonald, R.M. Santella, J.A.J. Stolwijk and H. Wachtell. 1993. Assessment of the Possible Health Effects of Ground Wave Emergency Network. National Academy Press. Washington, DC. 166+xiii pp.

Whitmyre, G.K, J.H. Driver, M.E. Ginevan, R.G. Tardiff and S.R. Baker. 1992. Human exposure assessment I: Understanding the uncertainties. Toxicology and Industrial Health. 8: 297-320.

Whitmyre, G.K, J.H. Driver, M.E. Ginevan, R.G. Tardiff and S.R. Baker. 1992. Human exposure assessment II: Quantifying and reducing the uncertainties. Toxicology and Industrial Health. 8:321-342.

Putzrath, R.M. and M.E. Ginevan. 1991. Meta-Analysis: Methods for combining data to improve quantitative risk assessment. Regulatory Toxicology and Pharmacology. 14:178-188.

Clevenger, M.A., R.M. Putzrath, M.E. Ginevan, S.L. Brown, C.M. DeRosa and M.M. Muntaz. c. 1991. Risk Assessment of Mixtures: A Model Based on Mechanisms of Action and Interaction. In Risk Analysis: Prospects and Opportunities. C. Zervos, K. Knox, L. Abramson and R. Coppock (Eds). Plenum Press, New York. pp. 293-303.

Ginevan, M.E. 1990. Discussion of Occupational Studies. Radiation Research. 124:352-353.

Ginevan, M.E. 1990. Electric Fields: Discussion and Summary. In: ASA Conference on Radiation and Health: Health Effects of Electric and Magnetic Fields: Statistical Support for Research Strategies. Chair: M.E. Ginevan. American Statistical Association, Alexandria, VA. pp 119-125.

Ginevan, M.E. and R.G. Tardiff. 1990. Risk assessment for groundwater contaminants: reducing the uncertainty with improved analytic techniques. Presented to the Edison Electric Institute, Washington, DC, July 19, 1990.

Michael Ginevan, Ph.D.

Wilkinson, C.W., M.E. Ginevan and P. Roney. 1989. A Critical Review of the Natural Resources Defense Council's Report, "Intolerable Risk: Pesticides in Our Children's Food." National Agricultural Chemicals Association, Washington, DC. 66+ix pp.

Nagda, N.L., R.C. Fortman, M.D. Koontz, S.R. Baker and M.E. Ginevan. 1989. Airliner Cabin Environment: Contaminant Measurements, Health Risks, and Mitigation Options. Report No. DOT-P-15-89-5. U.S. Department of Transportation, Washington, DC.

Ginevan, M.E. 1989. Environmental Statistics in the 90's: Coping with the information revolution. In: Challenges for the 90's. B.A. Bailar and F.C. Leone (Eds). American Statistical Association, Alexandria VA. pp 48-49.

Ginevan, M.E. 1988. Radon as an indoor air pollutant. *Statistical Science*. 3: 371-373.

Ginevan, M.E. 1987. Uncertainty Analysis in Risk Calculation. *Environmetrics 87 Program Abstracts*. pg. 16.+

Ginevan, M.E. and R.M. Putzrath. 1987. Risk Assessment: A Meta-analytic View of Toxicology. *Environmetrics 87 Program Abstracts*. pg. 15-16.+

Brown, S.L., J.E. Rossi and M.E. Ginevan 1987. A Mathematical Model for Dermal Absorbtion from Water. *Environmetrics 87 Program Abstracts*. pg. 34.+

Miller, D., M.E. Ginevan and Y. Sternberg. 1987. Assessing Contamination in Ground Water: What is Background? *Environmetrics 87 Program Abstracts*. pg. 10.+

Ginevan, M.E. and J.R. Viren. 1986. The Role of Uncertainty in Probability of Causation Calculations. *Society for Risk Analysis Annual Meeting Program Abstracts*. pg. 1. +

Ginevan, M.E. and W.A. Mills. 1986. Assessing the risks of radon exposure: The influence of cigarette smoking. *Health Physics*. 51: 163-174.

Ginevan, M.E. and A. Brodsky. 1985. Definition of minimal detectable amount for Poisson distributed data. *Health Physics*. 49:170.+

Ginevan, M.E. 1985. A flexible computer model for radon daughter health risk assessment. *Proceedings of the International Conference on Radiation Safety in Mining, Vol. 2*. Canadian Nuclear Association, Toronto. pp 595-603.

Ginevan, M.E. 1984. A computer code for general analysis of radon risks. U.S. Nuclear Regulatory Commission Report NUREG 1029. 84 + viii pp.

Ginevan, M.E. 1984. Lifetable methodology for radon risk assessment. Final Report - ASA Conference on Radiation and Health: Coolfont IV. pp 43-48.

Michael Ginevan, Ph.D.

Ginevan, M.E., W.A. Mills and J.S. Puskin. 1984. Radiation exposure standards for radon based on lung cancer rates in nonsmokers. Proceedings of the 6th International Congress of IRPA. International Radiation Protection Association, Fachverband Für Stralenschutz e.V. pub. West Berlin. pp.1257-1260.

Ginevan, M.E. and W.A. Mills. 1983. Estimation of radon daughters related lung cancer risk. Health Physics 45:241-242.+

Ginevan, M.E. and J.S. Puskin. 1983. Delayed effects of A-bomb radiation. Journal of Epidemiology and Community Health 37:85-86.

Carnes, B.A. and M.E. Ginevan. 1983. Estimation of the ridge constant: An approach based on the condition index. Program Abstracts, 1983 Joint Statistical Meetings, Toronto, Canada. p 69.+

Ginevan, M.E. and B.A. Carnes. 1983. A pictorial approach to some concepts in multiple regression analysis. Program Abstracts, 1983 Joint Statistical Meetings, Toronto, Canada. p 81.+

Ginevan, M.E., C.D. Brown, J.J. Bromenshenk, K.C. Chun, N.A. Devine, D. Fingleton, C.A. Reilly, P. Rice and K. Wilzbach. 1982. Health and Environmental Effects Document on a High BTU Coal Gasification Industry - 1981. ANL/ES-124.

Ginevan, M.E. and B.A. Carnes. 1982. Approaches to problems of collinearity and dimensionality in studies of disease-environment association. 1981 D.O.E. Statistical Symposium: Proceedings. Brookhaven National Laboratory Report BNL51535. pp 119-124.

Curtiss, J.R.B., M.E. Ginevan and C.D. Brown. 1982. Spatio-temporal analysis of human birthweight: An indicator of subtle environmental stress?. Proceedings, International Symposium on Health Impacts of Different Sources of Energy (IAEA SM 254). pp 33-50.

Ginevan, M.E. 1981. Reply to Bertell. Health Physics 41:422-424.

Ginevan, M.E. 1981. A Poisson trials approach to interpopulation comparisons of cause of death data. Environmental Research. 25:147-159.

Collins, J.J., M.E. Ginevan, and R.T. Lundy. 1981. The use of a demographic model for health risk assessments. Environmetrics'81: Summaries of Conference Presentations: 220-221. \*

Curtiss, J.R.B., M.E. Ginevan and C.D. Brown. 1981. Human birthweight patterns as an indicator of environmental health: Comparison of similar counties in Upstate New York. Environmetrics'81: Summaries of Conference Presentations: 222-223. \*

Carnes, B.A., M.E. Ginevan and J.J. Collins. 1981. Multivariate methods for assessing disease /environment association. Environmetrics' 81: Summaries of Conference Presentations: 212-213. \*



Michael Ginevan, Ph.D.

Ginevan, M.E., J.R.B. Curtiss and D. Grahn. 1981. Adult leukemia risk diagnostic x-rays: A reanalysis of the Tri-state leukemia survey data. Nuclear Regulatory Commission Publication NUREG/CR2234. 75+iii pp.

Collins, J.J., B.A. Carnes and M.E. Ginevan. 1980. Methods of assessing regional versus national patterns in county level health/environmental data. National County Level Data Users Workshop: Reston, VA. 10-16-80.+

Ginevan, M.E., D.D. Lane and L. Greenburg. 1980. Ambient air concentration of sulfur dioxide affects flight activity in bees. Proceedings of the National Academy of Sciences. 77: 5631-5633.

Ginevan, M.E. and D.D. Lane. 1980. A gas exposure system for insects. Journal of Economic Entomology. 73:46-48.

Ginevan, M.E. 1980. Non-lymphatic leukemias and diagnostic x-rays: The evidence reconsidered. Health Physics. 38:129-138.

Ginevan, M.E. 1979. An inequality involving the binomial distribution with an application to maximizing the power of certain binomial tests. American Statistical Association Meeting Abstracts. p93.+

Ginevan, M.E. 1979. Testing land use map accuracy: Another look. Photogrammetric Engineering and Remote Sensing. 45:1371-1377.

Ginevan, M.E. and D.D. Lane. 1978. Effects of sulfur dioxide in air on the fruit fly, *Drosophila melanogaster*. Environmental Science and Technology. 12: 828-831.

Ginevan, M.E. 1977. Effects of low level sulfur dioxide exposure on the fruit fly, *Drosophila melanogaster*. Contributed paper 107; AAAS National Meeting, Denver 2-21-77. (AAAS Publication 77-2).+

Ginevan, M.E. 1976. The potential impact of sulfur dioxide air pollution on insects: An experimental study of *Drosophila melanogaster*. University of Kansas Technical Report ERL-7602. 98 pp.

Ginevan, M.E. 1976. A gas exposure system for *Drosophila* and other small insects. Drosophila Information Service. 57:177-178.

Hedrick, P.W., M.E. Ginevan, and E.P. Ewing. 1976. Genetic polymorphism in heterogeneous environments. Annual Review of Ecology and Systematics. 7:1- 32.

Ginevan, M.E. 1971. Genetic control of melanism in *Panthea furcilla* (Packard) (Lepidoptera: Noctuidae). Journal of the New York Entomological Society. 79:195-200.

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