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Areas of Expertise

- Weighing Toxicologic Evidence
- Quantitative Risk Methods
- Pharmacokinetic Modeling
- Chlorinated Solvents
- Endocrine Disruptors
- Risk Policy & Methodology
- Cumulative Risk
- Product Safety/REACH

Education

- Ph.D., Population Biology, State University of New York at Stony Brook
- B.Sc. (Honours, Biology), Queen's University, Ontario
- Fellow, Academy of Toxicological Sciences

Lorenz R. Rhomberg, Ph.D., ATS

Advising Principal

Dr. Rhomberg is an expert in quantitative risk assessment, including dose-response analysis, pharmacokinetic modeling, and probabilistic methods, with special experience in chlorinated solvents and endocrine-active agents. He is the author of books and of more than 90 articles on these topics. His practice includes work in support of environmental litigation, as well as work relating to a variety of regulatory programs, including CERCLA, FIFRA, TSCA, and REACH, among others. Before joining Gradient, Dr. Rhomberg was on the faculty of the Harvard School of Public Health and was employed by US EPA. Dr. Rhomberg is active in professional groups and environmental policy development, focusing on current issues in the interpretation of toxicological data in human health risk assessment through service on panels sponsored by government, industry, and organizations such as the National Academy of Sciences and the UN Environmental Program. Dr. Rhomberg was recognized as the Outstanding Practitioner of the Year by the Society for Risk Analysis in 2009 and was named a Fellow of that Society in 2016. In 2017, he was given the Society of Toxicology's Arnold Lehman Award for contributions to the development of risk analysis.

Selected Projects

Skin Cancer Risk from Coal Tar Shampoo: Served as a testifying expert for a state government on the analysis of an animal bioassay on skin cancer risk from dermally applied coal tar, which included extrapolation to potential human risks from use of coal tar shampoo.

Potential Human Health Effects of Trichloroethylene: Performed expert evaluation of toxicologic and epidemiologic studies.

Public Communication and Mediation on Dioxin Sampling: For the US Army, provided expertise to state regulators and a citizens' board on the utility and pitfalls of environmental sampling for dioxin contamination near a US Army laboratory facility.

"State-of-the-Science" Publication on Trichloroethylene Dose-Response Analysis:

Commissioned by US EPA to analyze alternative bases for human carcinogenic potency using pharmacokinetic model results and data from rodent carcinogenicity bioassays.

Chlorinated Solvent Toxicology and Risk from Air Infiltration: Served as an expert defendants' witness regarding toxicological knowledge of several solvents and potential for health risk to nearby residents based on exposure *via* infiltration into indoor air from a groundwater plume, in view of plume modeling, indoor air measurements, other plumes from other PRPs, and household chemical use.

Critical Review of US EPA Guidance: Provided critique and public comments on US EPA's proposed supplemental guidelines for assessing cancer risks to children, on behalf of a trade association.

Selected Publications

Rhomberg, LR; Lewandowski, TA. 2006. "Methods for identifying a default cross-species scaling factor." *Hum. Ecol. Risk Assess.* 12:1094-1127.

Lewandowski, TA; **Rhomberg, LR.** 2005. "A proposed methodology for selecting a trichloroethylene inhalation unit risk value for use in risk assessment." *Regul. Toxicol. Pharm.* 41(1):39-54.

Rhomberg, LR. 2004. "Separating pharmacokinetic and pharmacodynamic components in empirical adjustment factor distributions." *Hum. Ecol. Risk Assess.* 10(1):79-90.

Evans, JS; **Rhomberg, LR;** Williams, PL; Wilson, AM; Baird, SJS. 2001. "Reproductive and developmental risks from ethylene oxide: A probabilistic characterization of possible regulatory thresholds." *Risk Anal.* 21(4):697-717.