

Human Health Risk Assessment



Risk Science Center scientists combine a practitioner's knowledge of the issues and pitfalls involved in the development of human health risk assessments, together with cutting-edge toxicology expertise, to develop state-of-the-science assessments. Our research, aimed at improving risk assessment methods particularly in the areas of dose-response and mode of action, further enhance our analyses. In solving risk problems for a diverse array of government and private sponsors, we apply a collaborative philosophy that emphasizes partnership building, allowing us to expand our pool

of expertise, build on multiple perspectives, and ensure the use of the best science. These strengths form the basis for our development of independent and science-driven analyses for a range of risk assessment products such as screening-level assessments, dossiers for HPV and REACH, occupational assessments, and in-depth evaluations considering mechanistic data and using sophisticated modeling techniques.

Contact Dr. Lynne Haber (lynne.haber@uc.edu; 513-558-7631).

Peer Review & Consultation

Engaging outside experts to review risk assessments and methods can help insure high quality and scientifically defensible work products and results. Government agencies, non-profits, and industry all recognize the value added by expert peer review. The Risk Science Center is a world leader in providing independent expert review for all types of risk assessment documents and activities. We offer a variety of opportunities and services to engage expert peers, including in-person panel meetings, webcasts and webinars; letter reviews; workshops to develop risk values or methods; and in-house technical reviews.



Contact Ms. Jacqueline Patterson (jacqueline.patterson@uc.edu; 513-558-1908).

Risk Assessment Training and Continuing Ed



The Risk Science Center is committed to working with risk professionals, students, and the public to improve knowledge and understanding of risk assessment methods. Our continuing education and training courses are suitable for a variety of audiences including industry, government, consulting, academia, nonprofits, and the legal community. Our course materials are designed to make risk issues and the underlying science understandable to the intended audience and skill level.

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Occupational Risk & Exposure

Although a number of U.S. organizations develop occupational exposure limits (OELs), much of the effort has focused on a relatively small subset of high volume chemicals, or those with particularly severe toxic endpoints. As a result, many workers are exposed to substances for which no guidance on acceptable exposure levels has been developed. We use the best available science to develop risk values to protect worker and public health. Our goal is to work cooperatively with other organizations' efforts to see that more OELs are developed and take full advantage of advances in risk assessment methods. We work to support OEL development through two distinct programs: development of sound OELs by Center staff, and organizing independent peer reviews of values developed by others.



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Risk Methods Development



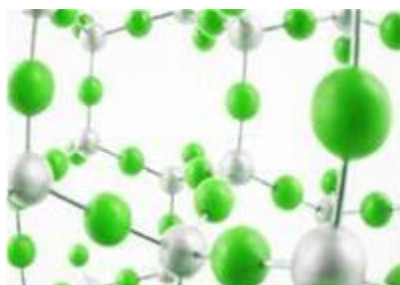
The field of risk assessment is changing rapidly as the "omics" revolution and the burgeoning field of molecular toxicology provide a wealth of data that were not traditionally available.

The Risk Science Center's research seeks to enhance the use of data on mode and mechanism of action to inform qualitative and quantitative aspects of risk assessment. We do this by designing targeted studies and decision frameworks to address key MOA questions, incorporating biomarker data to extend the dose-response curve using advanced PBPK and BBDR modeling approaches, and developing approaches to evaluate

health risk assessment for potentially-susceptible populations and other areas of uncertainty in risk assessment.

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Green Chemistry



At the Risk Science Center, we embrace the principles of Green Chemistry to help our sponsors design products and processes that reduce or eliminate the generation of hazardous substances. We offer systematic approaches to weighing comparative health and environmental risks, to help prevent waste, design safer products, and minimize the potential for accidents.

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