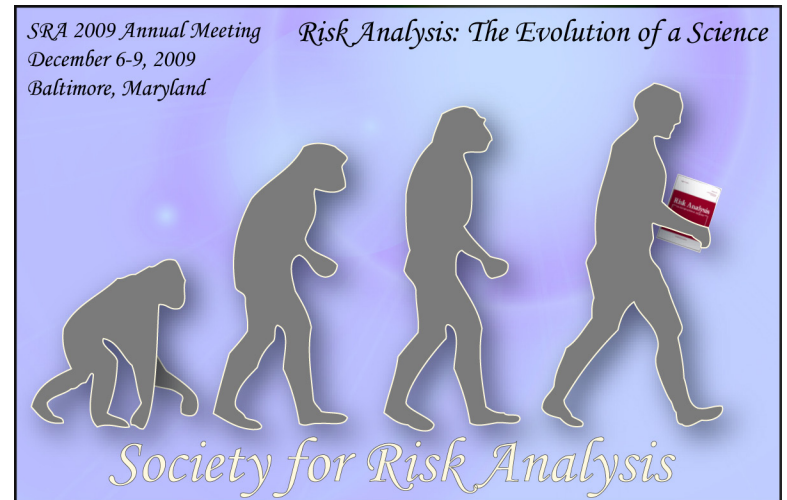


Register online and check out the complete program at www.sra.org

Society for Risk Analysis

Risk Analysis: The Evolution of a Science



2009 Annual Meeting
December 6-9, 2009
Renaissance Baltimore Harborplace
Baltimore, Maryland

Preliminary Program &
Registration Packet

Society For Risk Analysis Annual Meeting

2009 Preliminary Program and Registration Packet

Join us in Baltimore, MD

This year the SRA Annual Meeting will take place at the Renaissance Harborplace in Baltimore, Maryland. The meeting will include several plenary sessions focused on the theme of Risk Analysis: The Evolution of a Science. It will also include technical sessions in the form of oral presentations, posters, and poster-platforms. Additional information about the meeting, including detailed workshop pages, online registration, as well as online reservations for the Renaissance Baltimore Harborplace Hotel (SRA Headquarters Hotel) is available at www.sra.org.

Meeting theme: “Risk Analysis: the Evolution of a Science”

Risk Analysis -- including risk perception, risk assessment, risk management, and risk communication -- is an interdisciplinary field. The Society for Risk Analysis (SRA) annual meeting brings together nearly 750 international scientists and practitioners from a wide range of disciplines who share an interest in risk analysis. Representing academia, government, industry, NGOs, private firms, and themselves, SRA members recognize the value of diverse perspectives and a shared commitment to high quality risk analysis methodology and practice.

See it all:

Make your plans to attend the entire meeting, from workshops and the opening reception on Sunday (December 6, 6:00-7:30 PM) to the closing reception (wine and cheese and free t-shirts!) on Wednesday (December 9, 5:30-6:30 PM). The meeting includes lunch all three days, two Plenary sessions, and the exciting Poster Reception on Monday evening (6:00-8:00 PM).

Plenaries begin at 8:30 AM so plan to arrive early!

Calling all authors and exhibitors:

At the SRA exhibition, attendees have a first-hand opportunity to examine, discuss, and learn from the products and services on display. To request a booth at the SRA exhibition, or information about displaying a book on our publications table, contact Lori Strong at SRA Headquarters, (703) 790-1745, email: LStrong@BurkInc.com or go to www.sra.org and download the exhibit information.

Got a late breaking abstract?

You can submit a poster abstract until Friday, October 16, 2009, for consideration in the Monday evening poster session. Submit them to: <http://birenheide.com/sra/2008AM/lateposters.php3>.

Registration - Renaissance Inner Harbor, Baltimore

On-site check-in and registration hours for the meeting:

Sunday, December 6	4:00 - 6:30 PM
Monday, December 7	7:00 AM - 5:30 PM
Tuesday, December 8	8:00 AM - 5:30 PM
Wednesday, December 9	8:00 AM - 5:30 PM

Exhibit schedule:

Monday, December 7	Noon-4:00 PM
Tuesday, December 8	9:45 AM - 4:00 PM
Wednesday, December 9	9:45 AM - Noon

**Sessions and Luncheons, Committee Meetings, Receptions
and other social events take place at the
Renaissance Harbor Place.**

Meeting Highlights

Lunchtime Events - Renaissance Baltimore Harborplace Hotel

MONDAY - 12:00-2:00 PM, Business Meetings for Specialty Groups. All participants should pick up their box lunches and take them to the rooms designated for each of the specialty groups (or to a large open area where then can enjoy the opportunity to network.) All of the specialty groups will hold their business meetings during the Monday lunch block. (Don't forget to pick up your Box Lunch, included in your Registration fee.)

12:05-12:40 PM - Business meetings for the Dose-Response, Economics & Benefits, Engineering & Infrastructure, and Risk Communication Specialty Groups

12:40-1:15 PM - Business meetings for the Ecological Risk Assessment, and Exposure Assessment

12:45-1:25 PM - Business meetings for the Decision Analysis and Risk, Emerging Nanoscale Materials, Risk Policy & Law, Exposure Assessment and Ecological Risk Assessment

TUESDAY - Don't miss the annual SRA Awards Luncheon and Business Meeting, which will include the announcement of all SRA awards and the 5 Best Poster Award winners from Monday's Poster Reception! Luncheon is included in your registration fee.

WEDNESDAY - All participants should plan to attend the Plenary Luncheon included in the registration fee.

Poster Reception - Maryland Ballroom

This year's meeting will feature one Poster Reception on Monday evening from 6:00 to 8:00 PM, with food and drinks. During this time, attendees will have the opportunity to vote for the 5 Best Posters. Posters will be on display starting at noon and poster presenters will be at their posters for questions and discussion during the Reception. Don't miss it!

Registration Information

REGISTER ONLINE: at www.sra.org

REGISTER BY FAX: Fax your completed form with credit card information to (703) 790-2672 (Purchase orders not accepted for workshops)

REGISTER BY MAIL: Mail your completed form with payment to:

SRA Headquarters

1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101

Mail completed registration form with check, purchase order or credit card information. You are considered registered when full payment or purchase order has been received.

CONFIRMATIONS: Confirmation letters will be mailed once payment has been received.

CANCELLATION POLICY: All cancellations are subject to a \$50 service charge. Cancellations must be in writing to the SRA Secretariat.

Cancellation letters received by **November 6** will be refunded total registration fees minus the \$50 service charge and will be refunded after the meeting. No refunds will be issued on cancellations received after **November 6**.

Please note - speakers will not receive a refund if they cancel.

DIETARY RESTRICTIONS: Please note any dietary restrictions on the forms when you register.

Committee Meetings and Events

Workshops

Sunday, 12/6, Full Day - 8:00 AM-5:00 PM; Half Day Morning - 8:30 AM-12:30 PM; Half Day Afternoon - 1:30-5:30 PM.

Thursday-Friday, 12/10 - 8:00 AM-5:00 PM, 12/11 - 8:00 AM-1:00 PM

SRA Council Meetings - Fells Point

Sunday, 12/6, Noon–5:00 PM and Tuesday, 12/8, 6:30-10:00 PM

SRA Welcome Reception – (Cash Bar) - Baltimore Ballroom

Sunday, 12/6 – 6:00–7:30 PM

New Member and Fellows Breakfast

Monday, 12/7 - 7:00-8:00 AM

All SRA Fellows as well as 2009 and 2010 New Members (badges with a New Member ribbon) are welcome to attend.

Specialty Group Meetings

Monday, 12/7 - 12:00-1:30 PM

All Specialty Group Meetings will take place during lunch time on Monday, December 7, 2009. Pick up your box lunch and attend the meeting(s) of your choice. See page 2.

Poster Reception - Maryland Ballroom

Monday, 12/7 – 6:00–8:00 PM

See page 2.

Other Meetings

Publications Committee, Monday, 12/7 - 7:00-8:30 AM

Specialty Group Chairs, Monday, 12/7 - 3:30-6:30 PM

Regional Organizations (Chapters & Sections) Chairs Meeting, Tuesday, 12/8 - 7:00-8:00 AM

Communications Committee, Tuesday, 12/8 - 7:30-8:30 AM

Membership Committee, Tuesday, 12/8 - 7:30-8:30 AM
Conferences and Workshops Committee, Tuesday, 12/8 - 3:15-4:30 PM

Committee Open Meeting, Tuesday, 12/8, 5:30-6:30 PM

Hotel Reservations

Renaissance Baltimore Harborplace Hotel

202 East Pratt Street

Baltimore, Maryland 21202

Phone: 410-547-1200, Toll-free: 800-535-1201

For reservations go to www.sra.org and follow the links from the annual meeting page to make your reservations online using the group code, OR call 410-547-1200. The daily room rates for this meeting are: single/double - \$154. Room rates for this meeting are available from December 4-10, 2009, subject to availability. SRA has reserved a block of rooms at the meeting rate, but once this block of rooms is sold out the hotel may offer any remaining rooms at the prevailing rate, so reserve your room early. The cut off date for this rate is November 13, 2009, or until the SRA room block is sold out.

If you drive to the meeting you can park at the hotel for the daily self-parking rate of \$26/day or valet rate of \$36/day. Both self-parking and valet have in/out privileges.

Taxi fare is currently approximately \$26 each way to and from the Baltimore/Washington International Airport for one person; the rate is less if sharing a ride. This price is subject to change.

The Super Shuttle is currently approximately \$18 each way to and from the Baltimore/Washington International Airport for one person, and reservations are required.

Career Development Opportunities

The Annual Meeting offers an opportunity to connect Jobs with Job Seekers. Please send your available-job postings via email to David Drupa at ddrupa@burkinc.com. If you would like to submit a blind resume, please request a form by emailing David Drupa at ddrupa@burkinc.com.

Job postings and blind resumes will be posted at the meeting and will be held at SRA headquarters for 6 months after the meeting.

Workshops - Sunday, December 6

Full Day Workshops – 8:00 am – 5:00 pm

(Lunch is on your own other than as noted on particular workshop description)

WK1: Probabilistic Risk Analysis with Hardly Any Data

Organizer: Scott Ferson

\$240 preregistration; \$290 onsite registration

This full-day tutorial introduces and compares methods for developing a probabilistic risk analysis when little or no empirical data are available to inform the risk model. The talks are organized around the basic problems that risk analysts face: not knowing the input distributions, not knowing their correlations, not being sure about the model itself, or even which variables should be considered. Possible strategies include traditional approximative methods and recent robust and bounding methods. Numerical examples are given that illustrate the use of various methods including traditional moment propagation, PERT, maximum entropy, uniformity principle, probability bounds analysis, Bayesian model averaging and the old work horse, sensitivity analysis. All of the approaches can be used to develop a fully probabilistic estimate useful for screening decisions and other planning. The advantages and drawbacks of the various approaches are examined. The discussion addresses how defensible decisions can be made even when little information is available, and when one should break down and collect more empirical data and, in that case, what data to collect. When properly formulated, a probabilistic risk analysis reveals what can be inferred from available information and characterizes the reliability of those inferences. In cases, where the available information is insufficient to reach dispositive conclusions, bounding probabilistic risk analysis provides a compelling argument for further empirical research and data collection. The presentation style of the tutorial will be casual and interactive.

WK2: Get More from Your Models - Use Sensitivity Analysis

Organizer: Amir Mokhtari

\$245 preregistration; \$295 onsite registration

This workshop will answer key questions faced by those who conduct, manage, or review probabilistic and sensitivity analysis of risk models.

When should you perform sensitivity analysis? What are the typical

simulation techniques and software packages? What are the roles of uncertainty and sensitivity analyses as value added techniques in risk assessment? How do you prepare a model to facilitate sensitivity analysis? What are some typical sensitivity analysis methods and how can you select among them? How should particular sensitivity analysis methods be applied? How should the results of sensitivity analysis be presented and interpreted? This workshop will answer these questions.

The methods and case studies are based upon several years of research at NC State University and RTI regarding developing quantitative risk assessment models for environmental and microbial systems and also research at NCSU regarding transferring, applying, and adapting sensitivity analysis methods developed in other disciplines (e.g. complex engineering systems) to quantitative exposure and risk assessment models. Workshop participants will be provided with course notes, a copy of the guidance document, and a tutorial with examples for instructing attendees how to perform sensitivity analysis using common sensitivity analysis methods. The basic concepts of probabilistic risk assessment will be illustrated during the course using software packages such as @Risk and Crystal Ball. The uncertainty and sensitivity analysis methods will also be illustrated with practical case studies. This workshop is aimed at practitioners, managers, or reviewers who wish to refine their knowledge regarding approaches in risk assessment and sensitivity analysis methods. See: <http://www4.ncsu.edu/~frey/SRA09/>

WK3: Decision Analysis for Risk Analysts

Organizer: Greg Parnell

\$300 preregistration; \$350 onsite registration

Decision analysis is the appropriate operations research technique to help decision makers facing decisions with multiple stakeholders, conflicting objectives, significant uncertainties, and complex alternatives. This workshop presents the fundamentals of decision analysis to help risk analysts understand a related discipline that offers important concepts and techniques that can be used by risk analysts to better meet the needs of their clients and key stakeholders. We present the methodology and art of single objective (usually net present value) and multiobjective decision analysis and introduce the philosophy of Value-Focused Thinking for creating value for customers that focuses on identifying stakeholder values, using values to generate new alternatives, and using values to evaluate the alternatives. Several decision

analysis applications are presented including examples of the use of decision analysis and risk analysis concepts incorporated in an integrated analysis framework. In addition to the analytical concepts, the workshop compares three decision analysis approaches (analytic approach, decision conferences, and dialog decision process) to engaging decision makers and stakeholders.

WK4: Risk Management for Movers and Shakers

Organizer: N. Krishnamurthy

\$295 preregistration; \$345 onsite registration

The workshop is aimed at the planners and managers (movers and shakers), and all who are responsible for conducting risk assessment and implementing risk controls at the workplace. The workshop will focus on current workplace safety management practices in industry, particularly construction. Responsibilities of various stakeholders in the value chain for personnel safety will be highlighted. The elusive concept of ‘safety culture’ will be clarified. It will cover the basic principles of qualitative risk assessment by job safety analysis based on the likelihood of hazard occurrence and severity of its consequences, and combining them with a risk matrix. Extension to numerical rankings will be discussed. A major aim will be to address the increasing need for use of risk assessment as a proactive measure to reduce workplace accidents, both from legal and professional points of view, and at the same time convince the managers that safety is also good business. There will be a distinct international flavor to the presentation due to the extensive experience of the instructor in the United States, India, and Singapore. The study material will include a complimentary copy of the instructor’s book: “Introduction to Risk Management,” and his recent papers on the subject. No prior knowledge or experience of risk management will be expected from the participants. The course will start with the essential fundamentals and reach up to a working competency level. It will not get into scientific or mathematical abstractions, but deal with practical case studies and real-life everyday scenarios. See www.profkrishna.com for additional background

WK5: Introduction to the Benchmark Dose Methodology and Interactive Application of EPA’s Benchmark Dose Software (BMDS), Version 2.1

Organizer: Allen Davis

\$250 preregistration; \$300 onsite registration

This daylong course is designed to provide participants with an interactive training workshop on the use of the U.S. EPA’s Benchmark Dose

Software, BMDS 2.1 and its application to risk assessment. The course will provide instruction in changes that have been implemented in version 2.1, including a new user interface that allows multiple run processing, the ability to save model option choices, and summary sheets for side-by-side comparison of model results. The course will provide an overview of the BMD process, including determination of data adequacy, model fitting, model comparison, selection of a benchmark response level, and modeling linear versus nonlinear responses. Attendees will also work on examples from chemical assessments and learn how to take advantage of the new features offered by version 2.1 of BMDS to prepare summary reports for insertion in their assessments. This workshop will cover all the BMD models available in the current version of BMDS—including the recently added dichotomous hill, background dose, and continuous exponential models. This course is an interactive training workshop in the features of BMDS 2.1 and it is therefore recommended that prior to this training students who are not familiar with BMD modeling take the online BMD training course (<http://www.epa.gov/ncea/bmbs/training/index.html>) in order to ensure that they receive the maximum benefit from participating in the workshop. Participants need to bring their own laptops to the workshop with the latest version of BMDS 2.1 installed (with necessary administrative rights). The latest version of the software can be found at: <http://epa.gov/ncea/bmbs/>

WK6: Risk Analysis: Fundamental Concepts, Approaches, Issues and Applications

Organizer: David M. Hassenzahl

\$295 preregistration; \$345 onsite registration

Meetings and publications of the Society for Risk Analysis can be daunting to newcomers. More generally, risk analysis incorporates and spans many disciplines. It is often difficult for people, even those who work on some topic within risk analysis—be it toxicology, terrorist threat assessment or human behavior—to understand how their work fits into the risk analysis “big picture.” Likewise, disciplinary training does not prepare people to understand, much less converse with, fellow practitioners. This workshop, taught by experts with extensive histories in practice, government and academia, is designed to fill that gap. We introduce fundamental risk analysis concepts, terminology, applications and calculations. The workshop is suitable for first time Society for Risk Analysis Annual Meeting attendees, as well as all individuals new to risk analysis and those who have been involved in

only a limited aspect of risk analysis. Participants should have an undergraduate degree in an area relevant to risk analysis, and/or relevant work experience. Upon completion of this course, students will gain a broader, holistic view and understand the origins, applications and controversies surrounding risk analysis. They will be prepared to evaluate risk analysis reports and presentations. Most importantly, they will be prepared to engage comfortably in the range of conversations that distinguish Society for Risk Analysis Annual Conferences. Lunch will be provided.

WK7: Spatial Decision Support Tools for Managing Multi-Criteria Environmental Contamination Problems

Organizer: Terry Sullivan

\$300 preregistration; \$350 onsite registration

Environmental contamination problems are often complex due to the need to incorporate many differing measures and views into the decision process. In addition, large environmental problems have a spatial component that impacts the decision. The objective of the workshop is to present the attendee with an overview of the types of software tools and supporting models that are commonly needed to address complex environmental contamination problems. The workshop is geared towards providing a fundamental level of understanding on the application and use of multi-criteria decision analysis tools for environmental problems with a spatial component. The course will begin with an overview of existing environmental Spatial Decision Support Tools and the many criteria (cost, ecological risk, environmental risk, societal values, etc.) that are part of the decision process. The concept of multi-criteria decision analysis tools will be introduced and the basic MCDA methods will be covered. The integration of GIS tools to examine spatial relationships in the problem, MCDA tools, and process models to predict risks, costs, etc will be discussed. The discussion of each component (GIS, MCDA, risk, etc.) will begin with an overview of the general capabilities and functionality of the models and progress to practical applications. The course will conclude with examples using the DECERNS software as a teaching aid of a few case studies that integrate the different components into the analysis within a consistent framework. Case study examples will include environmental resource allocation (maintaining habitat for endangered species) and land contamination problems.

WK8: Methods for identifying cost-effective risk reduction technologies for controlling animal disease in developing countries

Organizer: Clare Narrod

\$350 preregistration; \$400 onsite registration

The emergence of HPAI and the threat of a global human pandemic have been issues of great concern in recent years. The problem is compounded by uncertainty regarding the timing, extent and severity of HPAI, and the risk of human infection. In addition to actual outbreaks, control strategies have significant economic and social costs, including direct costs of standard disease control measures – such as compensation, vaccination, eradication and bio-security – as well as indirect costs of building institutions and mechanisms to support those measures. Significant indirect costs stem from wide-spread market shocks, which place a heavy burden not only on poultry producers of all sizes, input suppliers, and others along the poultry value chain, but also on consumers. In many affected countries, poultry production is highly heterogeneous; hence, the effectiveness and efficiency of control and prevention strategies are likely to vary significantly across production units depending on their size and levels of bio-security. This workshop will illustrate methods that will help identify and evaluate different control and prevention strategies. The methods presented, when used by policy makers can aid them in their efforts to select a strategy that is most suitable for any given country. In many developing countries, a great majority of the rural and peri-urban poor are involved. The workshop will conclude with the presentation of two case studies illustrating how a multidisciplinary team of risk assessors, economists, and sociologists went about identifying cost-effective control options to reduce the risk of HPAI in select countries in Africa and Asia.

WK9: Workshop on Scientific Methods for Evaluating EDSP Screening Data and Estimating Dose-Response for Endocrine Disruption

Organizer: Richard Belzer

\$495 preregistration; \$545 onsite registration

Law enacted in 1996 (codified at 21 U.S.C. 346a(p)) directs EPA to develop a screening program, using appropriate validated test systems and “other scientifically relevant information,” to determine whether certain substances may have adverse endocrine effects in humans. EPA’s Endocrine Disruptor Screening Program has proven challenging to implement for several reasons, including the difficulty of defining “adverse” endocrine effects

in humans, and devising and validating appropriate toxicological test systems that are sufficiently sensitive and specific to achieve the statutory goal. EPA is implementing a two-tiered testing strategy. Tier 1 will screen for potential adverse effects, and Tier 2 will characterize human dose-response. EPA does not yet have a scientific weight-of-evidence framework for evaluating Tier 1 data and “other scientifically relevant information.” This workshop has two objectives. The morning session will evaluate the Tier 1 test battery to ascertain (1) whether Tier 1 data can satisfy statutory criteria; and (2) if so, how outputs from Tier 1 can be used to develop a (minimally) ordinal or (desirably) cardinal ranking that is scientific, transparent, reproducible, and objective. The afternoon session will focus on selecting and designing “appropriate validated test systems” for Tier 2, taking into account these statutory requirements. In part because no established methods now exist for estimating human endocrine dose-response, Tier 2 provides a novel opportunity for innovative scientific work in toxicology, modeling and biostatistics. Registrants will participate with invited experts in toxicology, endocrinology, and biostatistics. The workshop will produce a report suitable for peer review publication.

WK10: The Use of Decision Support Tools as an Aid in Making Cleanup Decisions for Sites Contaminated with Unexploded Ordnance (Workshop and Research Project)

Laurie Haines

NO FEE (but be sure to register to save your spot!)

Recently, DoD has implemented a program to clean up unexploded ordnance (UXO) on land no longer used for military training. Reaching a decision on an appropriate level of cleanup at these sites is often difficult because multiple stakeholders must reach consensus. To reach consensus, stakeholders must make difficult trade-offs between social, economic, political and technical considerations. Decision support tools such as benefit cost analysis (BCA) and multicriteria decision analysis (MCDA) are thought to facilitate decision making because they help decision makers: 1) structure the problem; 2) quantify uncertainty, 3) quantify preferences; and 4) evaluate alternatives. Workshop attendees will learn about decision support tools and participate in a research project. The research, which is being conducted as part of a dissertation project, is intended to evaluate whether the use of decision support tools at UXO sites results in better cleanup decisions or a more efficient decision making process. The workshop will consist of approximately 3 hours of lecture that introduces decision analysis concepts

and presents an overview of the research project and the tools that will be tested. The remainder of the workshop will consist of a hands-on exercise in which workshop attendees will be asked to use the decision support tools to reach consensus on an appropriate cleanup level for UXO at a hypothetical site. Three different decision support tools will be tested: 1) EPA's Munitions and Explosives of Concern Hazard Assessment (MEC HA); 2) BCA; and, 3) MCDA. Lunch will be provided.

Morning Half Day Workshops – 8:30 am – 12:30 pm

WK11: Cumulative Risk Assessment Part 1: Chemical Mixtures Component-Based Methods

Organizer: Linda Teuschler

\$195 preregistration; \$245 onsite registration

Public interest exists in understanding multiple-route environmental exposures to chemical mixtures in the presence of population vulnerability factors related to diet, behaviors, genetics, socio-economics, sensitivities, and nutritional status. Cumulative risk assessment (CRA) is “an analysis, characterization, and possible quantification of the combined risks to human health or the environment from multiple agents or stressors” (U.S. EPA, 2003). CRA provides the integrating foundation for linking multiple stressors, vulnerabilities and environmental fate across exposure settings to produce a population-based risk picture and inform health protection programs. This set of two independent, but related workshops highlights concepts, methods, and resources for CRA, including lectures and hands-on exercises. Part 1 presents information on chemical mixture component-based risk assessment methods, mixture exposures, toxic mode of action and risk characterization for evaluating chemical mixtures, including multiple route exposures, with a look forward to CRA. Part 2 presents basic concepts, methods and resources for scoping and conducting a population-based CRA, based on chemical mixtures risk assessment approaches; a central theme is the integration of information during CRA planning and scoping by grouping chemicals or stressors by exposure and toxicity factors and linking them with vulnerability factors characteristic of the exposed population for use in developing risk characterization information. These workshops target people interested in developing knowledge of CRA concepts, methods, and resources. Either or both workshops may be taken depending on the goals of the participant, but Part 1 is recommended prior to taking Part 2 for those who are unfamiliar with chemical mixtures risk assessment methods.

WK12: Use of Expert Elicitation to Inform Decisionmaking

Organizer: Cristina McLaughlin

\$250 preregistration; \$300 onsite registration

Decision makers must frequently rely on data or information that is incomplete or inadequate in one way or another. Judgment, often from experts, then plays a critical role in the interpretation and characterization of those data. But how experts are selected and their judgments elicited matters – they can also strongly influence the opinions obtained and the analysis on which they rely. Several approaches to eliciting expert judgments have evolved. The workshop will cover topics ranging from expert recruitment, elicitation protocol design, different elicitation techniques (e.g., individual elicitations, Delphi method, nominal group technique, etc.) to aggregation methods for combining opinions of multiple experts. The role of expert elicitation and its limitations, problems, and risks in policy analysis will also be addressed. The workshop will conclude with the presentation of two case studies. The first is from EPA on using expert elicitation to determine the relationship between mortality and exposure to fine particulates. The second case study is a recent FDA study that evaluated the effectiveness of various practices for reducing Salmonella contamination risk in fresh and fresh-cut tomatoes through an expert elicitation. Both presentations will include a discussion of the expert selection process; elicitation protocol development, elicitation technique utilized, and the various issues that arose before, during, and after the elicitation process and the manner in which they were resolved.

Afternoon Half Day Workshops – 1:30 – 5:30 pm

WK13: Cumulative Risk Assessment Part 2: Concepts, Methods and Resources

Organizer: Linda Teuschler

\$195 preregistration; \$245 onsite registration

See Part 1 morning description for Part 2 information.

WK14: Introduction to Environmental and Health Aspects of Nanotechnology

Organizer: Jo Anne Shatkin

\$350 preregistration; \$400 onsite registration

This course will provide participants with an overview of the emerging concerns regarding nanotechnology and nanomaterials and impacts for occupational and public health and the environment. The course introduces the topics of nanotechnology, nanotoxicology, environmental aspects of

nanotechnology, and addresses ethical, legal, societal and regulatory perspectives. Through lectures and interactive sessions, participants will obtain a knowledge base for understanding the exposure, human health, and safety issues for nanomaterials and nanotechnologies and the potential impacts for workers, consumers, stakeholders, and the environment. Nanotechnology is the understanding and control of matter at dimensions of roughly 1 to 100 nanometers, where unique phenomena enable novel applications. Nanotechnology is emerging in all economic sectors, including: energy, medicine, food technology, imaging, manufacturing, electronics and air and water purification. Some of the current and potential future materials and technologies have the potential for significant impacts on health and the environment. This course introduces participants to the technological basis of nanoscale phenomena, the current and potential future uses of nanotechnology, explores the breadth of issues raised for health and the environment, and implications of current research and gaps on regulatory policy and societal impacts. At the conclusion of this course, the participants will have gained insights into (1) Key concerns regarding nanotechnology risks for employees, the public, and the environment; (2) Characteristics and properties of nanomaterials and nanotechnologies; (3) Nanotoxicology: state-of-the-science regarding the toxicity of nanomaterials and nanotechnologies; (4) Environmental aspects of nanotechnology; and (5) Risk assessment and risk management issues for nanomaterials and nanotechnologies.

WK15: Chemical-Specific Adjustment Factors: Avoiding Default Values for Inter- and Intraspecies Extrapolation

Organizer: John C. Lipscomb

\$200 preregistration; \$250 onsite registration

The World Health Organization's International Programme on Chemical Safety (IPCS), has established guidance for replacing default uncertainty factor values for interspecies extrapolation and intraspecies extrapolation in risk values such as Reference Doses (RfDs) and Tolerable Concentrations (TCs). It guides the evaluation and quantitation of data that can be used to replace defaults with chemical specific adjustment factors (CSAFs). The approach subdivides the uncertainty factors for interspecies differences (UFA) and human variability (UFH) into toxicokinetic (TK) and toxicodynamic (TD) components. Default values for any or all of these four subfactors can be replaced by CSAF values. In the absence of chemical-specific data, default values of 2.5 and 4.0 have been established for the TD and TK com-

ponent of UFA, while the default values for the TD and TK components of UFH were each established at one-half order of magnitude (3.2). This framework enables the incorporation of quantitative data, reducing the uncertainties in dose extrapolation. This emerging approach has been used to support the U.S. EPA in deriving an RfD for boron and by Health Canada in deriving a TC for 2-butoxyethanol. This half-day workshop will review the use of uncertainty factors and present a historical perspective on the reliance on quantitative data to develop values for inter- and intraspecies extrapolation. The course will focus on the IPCS methodology for CSAF development, including the thinking process and steps used for evaluating data. Examples and classroom activities will be used as instructional aids. Participants should bring a calculator.

Workshop - Thursday - Friday, December 10-11

Thursday, December 10 - 8:00 am - 5:00 pm

Friday, December 11 - 8:00 am - 1:00 pm

(Lunch is on your own for this workshop)

Joint IRAC-SRA-CBER-JIFSAN Workshop on New Tools, Methods and Approaches for Risk Assessment

Sponsored by: EPA/OW, FDA/CBER, FDA/CFSAN, JIFSAN SRA Biostressors Specialty Group, USDA/ARS, USDA/FSIS

Organizers: Steve Anderson and Marianne Miliotis

\$75 preregistration; \$100 onsite registration

A variety of approaches and methods are used in risk assessment. The Interagency Risk Assessment Consortium, FDA's Center for Biologics Evaluation Research, the Society for Risk Analysis, and the Joint Institute for Food Safety and Applied Nutrition are cosponsoring a symposium on "New Tools, Methods and Approaches for Risk Assessment." The goal of this workshop is to bring together a forum of risk assessment and other experts from a broad range of fields to discuss and share their insights in risk assessment and discuss common issues and novel approaches. The proposed topics to be discussed include:

- o Current state of dose-response modeling approaches for use of animal model data and extrapolation to predict human dose-response for microbial pathogens.
- o Application of proteomics and genomics to environmental, chemical/toxicological, food safety, drug and medical product risk assessments.

- o Applying risk assessment methods to predicting the effects of immunotoxicants on immune function and susceptibility to infectious disease
- o Metrics and tools used in risk and benefit analysis
- o Use of different databases in risk assessment; e.g., data from microarray studies, single nucleotide polymorphism and whole genome analyses to identify biomarkers for diseases and adverse effects; medical informatics; and free web-based databases accessible at www.foodrisk.org.

For more information about the meeting, please contact Steve Anderson (steven.anderson@fda.hhs.gov) or Marianne Miliotis (marianna.miliotis@fda.hhs.gov).

PLENARY SESSIONS

Monday, December 7, 8:30-10:00 AM

Room: Maryland BC

Abstract TBA

Speaker: Major General Donald Riley; US Army Corp of Engineers

Tuesday, December 8, 8:30-10:00 AM

Room: Maryland BC

Abstract TBA

Speaker: Philip Howard; Covington & Burling, Common Good

Wednesday, December 9, Noon-1:30 PM

Room: Maryland BC

Abstract TBA

Speaker: Kenneth Arrow; Stanford University

Roundtables, Tuesday, December 8, 2009

10:30 AM-Noon

Roundtable 1: An Integrated Risk Framework for Gigawatt-Scale Deployments of Renewable Energy: The Wind Energy Case Study

Organized by: Bonnie Ram

Assessing the potential environmental and human effects of deploying renewable energy along our coastlines and on land requires a new approach. Evaluating potential risks requires a consistent program of research over time that collects relevant data by each sectoral area, such as bat and bird collisions from wind turbines, fragmentation of marine habitats from offshore turbines, and safety on highways and shipping lanes. Risk assessment has been widely applied throughout the federal government and the corporate sector, but the wind community has only applied risk analysis to a few individual sector risks at various sites. This approach typically does not determine what are “acceptable risks.” This roundtable (based on a peer reviewed white paper) will discuss an integrated risk framework for evaluating systematically a broad spectrum of environmental and human risks associated with wind energy deployments---both land based and offshore. The paper argues that the wind community is often focusing on one potential impact or “subsystem dominance” such as wildlife risks or radar interference---making one subsystem the whole system --- and typically leads to data collection on a “risk de jour” basis, inaccurate findings, and poor decisions. An integrated risk perspective is a major asset for the wind community as it will not only address important aspects of the broader energy portfolio debate but also will show that wind, as compared with other energy options, is a relatively benign energy supply in terms of its human and environmental risks.

This discussion will begin with a brief presentation about this integrated risk framework and thereafter invite the roundtable participants (3 past Presidents of SRA) to provide their views on why the renewable energy decision makers have not yet viewed risk analysis as valuable and how this risk framework in particular may contribute to a better understanding of potential risks of gigawatt-scale deployment of renewable energy.

The invited roundtable participants:

Robin Cantor, PhD, Principal, Exponent

Robin Gregory, PhD, Decision Research

Roger Kasperson, PhD, Research Professor and Distinguished Scientist, Clark University

Warner North, PhD, North Works, Inc. and Consulting Professor at Stanford University

1:30-3:00 pm

Roundtable 2: New Ideas for Risk Regulation

Organized by: Lisa Robinson

In June of 2009, the Society for Risk Analysis (SRA) and Resources for the Future (RFF) sponsored a major conference on “New Ideas for Risk Regulation.” The goal of the conference was to inform efforts to improve regulatory development and analysis under the new Administration by fostering creative thinking on related issues. It focused on the regulation of environmental, health, safety, and security risks, and considered the national and international role of the Office of Information and Regulatory Affairs (OIRA) of the U.S. Office of Management and Budget in regulatory review and assessment. It brought together speakers from diverse backgrounds, including current and former senior government officials as well as leading scholars with expertise on a wide array of related issues.

This roundtable assembles several key participants from that conference to reflect on its conclusions and on the implications of succeeding events -- including the promulgation of a new Executive Order on regulatory analysis and review.

3:30-5:00 pm

Roundtable 3: EPA Endangerment Finding

Organized by: Sally Kane

<p>10:30 AM-Noon <i>Baltimore A</i></p> <p>M2-A Symposium: Effective Use of Micro- bial Risk Assessment Food Safety Risk Management Decisions <i>Chair: Wendy Fanaselle</i></p>	<p>10:30 AM-Noon <i>Baltimore B</i></p> <p>M2-B Challenges and Approaches to Homeland Security Integrated Risk Management <i>Chair: Bob Kolasky</i> <i>Sponsored by DARSG</i></p>	<p>10:30 AM-Noon <i>Salon A</i></p> <p>M2-C Symposium: The Emerging Role of Risk Analysis in US Army Corps of Engineers Decisionmaking <i>Chair: Yacov Haimes</i> <i>Sponsored by EISG</i></p>	<p>10:30 AM-Noon <i>Salon E</i></p> <p>M2-D Poster Platform: Risk Communication and Health <i>Chair: Ragnor Lofstedt</i> <i>Sponsored by RCSG</i></p>	<p>M2-D.7 Learning about contro- versial health technologies through a risk communication experiment: the case of pre-implantation genetic di- agnosis <i>Longstaff H</i> <i>The University of British Columbia</i></p>
<p>10:30 am M2-A.1 Challenges of utilizing risk assess- ments in regulatory decision making <i>Acheson DA</i> <i>Food and Drug Administration</i></p>	<p>10:30 am M2-B.1 Building an integrated risk manage- ment capability at DHS - processes and progress <i>Kolasky B, Miller AS, Rath C</i> <i>US DHS Office of Risk Management and Analysis</i></p>	<p>10:30 am M2-C.1 4 years after Hurricane Katrina and counting: building the greater New Orleans hurricane storm damage and risk reduction system <i>Durham-Aguilera K</i> <i>US Army Corps of Engineers</i></p>	<p>M2-D.1 Comparing clinical trial enrollment decisions of cancer pa- tients and prospective healthy vol- unteers - thoughts, feelings, or social influence? <i>Yang JZ, McComas KA, Gay G, Leonard JP, Dannenberg AJ, Dillon H</i> <i>SUNY, Buffalo, Cornell University</i></p>	<p>M2-D.9 Risk perception, trust and the willingness to register as a poten- tial organ donor in an electronic data- base <i>Kuttschreuter M</i> <i>University of Twente, Enschede, the Neth- erlands</i></p>
<p>10:50 am M2-A.2 Enlisting the help of academia in de- veloping and translating food safety risk assessment into practical risk management programs <i>Buchanan RL</i> <i>University of Maryland</i></p>	<p>10:50 am M2-B.2 The methodology of the Homeland Security National Risk Assessment <i>Levine ES, Kolasky B, Gabbrielli TW, Hickox A, Bennett SP</i> <i>US DHS Office of Risk Management and Analysis</i></p>	<p>10:50 am M2-C.2 Efforts toward flood risk assessments of complex riverine systems <i>Dunn CN, Deering MK</i> <i>US Army Corps of Engineers</i></p>	<p>M2-D.2 Seeking and processing information about influenza vaccina- tion: a study of healthcare workers <i>Clarke C, McComas K</i> <i>Cornell University</i></p>	<p>M2-D.10 Drug market initiative <i>Rivers L</i> <i>Michigan State University</i></p>
<p>11:10 am M2-A.3 Communicating microbial risks to the consumer <i>Benson AP</i> <i>International Food Information Council</i></p>	<p>11:10 am M2-B.3 Impact and importance of behavioral assumptions in integrated risk man- agement: examples from CBRNE terrorism <i>Sheppard B</i> <i>Institute for Alternative Futures</i></p>	<p>11:10 am M2-C.3 Critical gaps in science and engineer- ing practice relevant to risk-informed decision-making <i>Bridges TS, Houston JR</i> <i>US Army Engineer Research and Develop- ment Center</i></p>	<p>M2-D.3 An expert model of influ- ences on recruitment and retention of women into pregnancy registries <i>Thorne SL, Cummins S, Eggers SL, Butte G</i> <i>Decision Partners</i></p>	<p>M2-D.4 Mental models research into healthcare providers' treatment decisions for pregnant and nursing women <i>Eggers S., Ostrove N., Buck E., Dirolf K., Thorne S.</i> <i>Decision Partners, LLC.</i></p>
<p>11:30 am M2-A.4 Opportunities and challenges for in- dustry and government to utilize risk assessments for making food safety risk management decisions <i>Whiting RC</i> <i>Exponent</i></p>	<p>11:30 am M2-B.4 All-hazards risk assessment frame- work in public safety and security <i>Goudreau A</i> <i>Federal Government</i></p>	<p>11:30 am M2-C.4 TBD <i>Pietromsky RA</i></p>	<p>M2-D.6 One less: television ad- vertising and awareness of HPV risk among young women <i>Grantham S, Connolly-Ahern C, Ahern L</i> <i>University of Hartford, Penn State</i></p>	<p>M2-E.1 Proposed consensus criteria for as- sessing the reliability of scientific work <i>Conrad, Jr. JW</i> <i>Conrad Law & Policy Counsel</i></p>
				<p>10:30 AM-Noon <i>Federal Hill</i></p> <p>M2-E Research Funding and Scientific Integrity: Conflicts and Criteria <i>Chair: Richard Becker</i></p> <p>10:50 am M2-E.2 The science for policy project: rec- ommendations for improving the use of science in regulatory policy <i>Goldston D, Trapani J</i> <i>Bipartisan Policy Center</i></p> <p>11:10 am M2-E.3 Funding food science and nutrition research: financial conflicts and scien- tific integrity <i>Hentges E, Miller S</i> <i>ILSI North America, University of Mary- land</i></p>

11:30 am **M2-E.4**
Subjective or objective? Should the scientist be judged?
Borgert CJ
Applied Pharmacology and Toxicology, Inc., & C.E.H.T., University of Florida
Department of Physiol Sciences, College of Veterinary Medicine

10:30 AM-12:10 PM

Homeland

M2-F Symposium: PBPK Modeling for Mn

Chair: Julie Fitzpatrick
Sponsored by DRSG

10:30 am **M2-F.1**
Risk assessment of essential elements such as manganese
Krenski D, Tait V, Birkett N, Meek B
University of Ottawa

10:50 am **M2-F.2**
Application of a PBPK model for Mn in the monkey to evaluate the dose-dependence of the mode of action for neurological effects
Schroeter J, Nong A, Clewell HJ, Taylor MD, Andersen ME
The Hammer Institutes

11:10 am **M2-F.3**
Application of a human PBPK model for Mn to estimate a CSAF for the interindividual variability of neurological effects from Mn exposure
Clewell HJ, Nong A, Andersen ME
The Hammer Institutes

11:30 am **M2-F.4**
Development of a PBPK model for fetal and neonatal exposure to Mn and its application to estimate a CSAF for early life sensitivity
Yoon M, Clewell HJ, Andersen ME
The Hammer Institutes for Health Sciences

11:50 am **M2-F.5**
How pharmacokinetic modeling could improve a risk assessment for manganese
Boyes WB, Kenyon EM
US Environmental Protection Agency

10:30 AM-Noon

Fells Point

M2-G Identifying, Assessing, Managing, and Minimizing Risks from Emerging Contaminants

Chair: Steve Gibb
Sponsored by DARSG

10:30 am **M2-G.1**
Managing EC risks: using EC assessments to target risk management options
*Cunniff SE, Yaroshak P**
Office of the Deputy Under Secretary of Defense

10:50 am **M2-G.2**
Scanning the universe for emerging contaminants and what happens next
Hutchens SL
Department of Defense

11:10 am **M2-G.3**
Assessing risks from emerging contaminants: using expert elicitation and group decisions
Rak A, Glaccum W, Pitrat T
Noblis, US Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD

11:30 am **M2-G.4**
Minimizing future risks - chemical, physical & toxicity criteria for DoD acquisition programs
Yaroshak PJ
Department of Defense

10:30 AM-12:10 PM

Kent

M2-H Symposium: Formaldehyde Exposure and Human Leukomogenesis

Chair: Gail Charnley

10:30 am **M2-H.1**
Meta-analysis of risks associated with occupational formaldehyde exposure
Mundt KA, Mundt DJ, Montgomery R
ENVIRON International Corporation

10:50 am **M2-H.2**
Genomic evidence for dose-dependent transitions in the respiratory epithelium following formaldehyde exposure
Andersen ME, Thomas RS, Clewell HJ
The Hammer Institutes for Health Sciences

11:10 am **M2-H.3**
Nose-associated lymphoid tissue (NALT) and local lymph nodes in Fischer rats and B₃C₃F₁ mice upon 28-day exposure to formaldehyde vapor
Kuper CF, Ma-Hock L, Durrer S, Woutersen RA
Department of Toxicology and Applied Pharmacology, TNO Quality of Life, The Netherlands, BASF SE, Department of Product Safety, Germany

11:30 am **M2-H.4**
Clinical and hematotoxicologic evaluation of current evidence does not support classifying formaldehyde as a human leukemogen
Goldstein BD
University Pittsburgh Graduate School Public Health

11:50 am **M2-H.5**
A multi-pathway human health risk assessment of stack and fugitive emissions from a cement manufacturing facility encompassing current and proposed future (expanded) operations
Haack E, Treisman D, Baulk E, Rhydderch D, Ramesh G, Anger A, Watson B
WorleyParsons Infrastructure and Environment, Canada, Lafarge Canada Inc., Canada

11:50 am **M2-H.6**
Risk perception and participatory processes: that case of Secil - Outio cement facility
Palma-Oliveira J, Marques N, Antunes D, Maia N
University of Lisbon

10:30 AM-Noon

Pride of Baltimore

M2-I Symposium: Nanotoxicologists and Risk Assessors: A Conversation about Fullerenes

Chair: Jo Anne Shatkin

10:30 am **M2-I.1**
OECD program to develop data and risk assessment methodologies for nanomaterials
Atkinson A
Environment Canada

10:50 am **M2-I.2**
Physical and chemical features of the class of fullerene nanomaterials
Sayes CM
Texas A&M University

11:10 am **M2-I.3**
The toxicology of fullerenes: current efforts at the National Toxicology Program
Walker NJ
National Toxicology Program, National Institute of Environmental Health Sciences, NIH

11:30 am **M2-I.4**
Assessing the risks of fullerenes: interpreting the data
Shatkin JA, Sayes CM
CLF Ventures; Texas A&M

1:30-3:00 PM

Baltimore A

M3-A Risk Communication and Climate Change

Chair: Ann Bostrom

1:30 pm M3-A.1
Framing climate change: gains or losses? - And for me, them, or us?
Spence A, Pidgeon N
Cardiff University

1:50 pm M3-A.2
The role of political ideology and victim identification in the effectiveness of climate change messages
Hart PS
Cornell University

2:10 pm M3-A.3
Now what do people know about global climate change? A mental models approach
Bostrom A, Reynolds T, Hudson R
University of Washington

2:30 pm M3-A.4
Climate risk communication: a cure for people's mental models
Dutt V, Gonzalez C
Carnegie Mellon University

1:30-3:00 PM

Baltimore B

M3-B Risk-Informed Decision Framework for Integrated CBRN Terrorism Risk Assessment and Risk Management

Chair: Igor Linkov
Sponsored by DARSG

1:30 pm M3-B.1
Integrated CBRN terrorism risk analysis at DHS
Klucking S, Carnell R, McMillan N
US Department of Homeland Security

1:50 pm M3-B.2
Comparison of the 2008 DHS bioterrorism risk assessment and the bioterrorism decision model
Carnell R, McMillan N, Klucking S
Battelle Memorial Institute

2:10 pm M3-B.3
Subject matter expert elicitation to support the development of Bayesian belief networks for assessing CBRN terrorism risk
McMillan NJ, Carnell RC, McKinley RM, Weber SA
Battelle

2:30 pm M3-B.4
Risk-informed decision framework for integrated CBRN risk assessment and management
Linkov I, Tkachuk A, Canis L, Foran C, Benson H, Klucking S, Hawkins N, Bennett S
US Army Engineer Research and Development Center, MIT, Department of Homeland Security

1:30-3:00 PM

Salon A

M3-C Evolution of Health Risk Assessment, Part 1

Chair: Rick Reiss

1:30 pm M3-C.1
EPA in 1970s and early 1980s: the dawn of regulatory risk assessment
Anderson E
Exponent

1:50 pm M3-C.2
Evolution of risk assessment at US EPA: 1980's to the present
Schoeny R
US Environmental Protection Agency

2:10 pm M3-C.3
The evolution of health risk assessment
Soutberland E
US Environmental Protection Agency

2:30 pm M3-C.4
History of dietary safety and risk assessment at the US Food and Drug Administration (FDA)
Carrington CD, Bolger PM
US Food and Drug Administration

1:30-3:00 PM

Salon E

M3-D Poster Platform: Biofuels Research Needs: A Call for Risk and Decision Analysis

Chair: Pam Williams
Sponsored by DARSG

M3-D.3 Strategies for sustainable oil palm development in Kalimantan
McLaughlin D
Agriculture, World Wildlife Fund

M3-D.4 Evaluating bioenergy sustainability: filling the gaps
Efroymsen RA, Dale VH, Kline KL
Oak Ridge National Laboratory

M3-D.5 Optimizing the sustainability of ethanol conversion at the biorefinery
Inman D, Heath G, Hsu D, Aden A
National Bioenergy Center, National Renewable Energy Laboratory

M3-D.6 Next-generation biofuels: environmental and sustainability factors and research needs
Williams PRD, Inman D, Aden A, Heath GA
E Risk Sciences, LLP

M3-D.8 A conceptual framework for integrated assessment of significantly increased biofuels production in the midwestern United States
Randolph JC, Evans T, Royer T, Doering O
School of Public and Environmental Affairs, Indiana University

M3-D.9 A comparison of the full costs of ethanol and gasoline
Hill J
Institute on the Environment

1:30-2:30 PM

Federal Hill

M3-E Symposium: Uncertainty and Variability Analysis for Costs as Well as Risks

Chair: Adam Finkel
Sponsored by RPLSG

1:30 pm M3-E.1
Do risk assessors and regulatory economists approach uncertainty and variability differently?
Finkel AM
University of Pennsylvania Law School and UMDNJ School of Public Health

1:50 pm M3-E.2
Recommendations for quantifying uncertainty in regulatory cost assessment
Siegrist J, Ferson S
Applied Biomathematics

2:10 pm M3-E.3
Distribution and regulatory cost analysis: tracking economic impacts across society
Hoffmann SA, Safirova E, Harrington W
Resources for the Future

2:30 pm Discussants
Williams R, Steingor RI

Key to Specialty Group Designations

- BSSG = Biological Stressors
- DARSG = Decision Analysis and Risk
- DRSG = Dose-Response
- EASG = Exposure Assessment
- EBASG = Economics and Benefits Analysis
- EISG = Engineering and Infrastructure
- ERASG - Ecological Risk Assessment
- RCSG = Risk Communication
- RPLSG = Risk Policy and Law

<p>1:30-3:00 PM <i>Homeland</i></p> <p>M3-F Symposium: Health-care and Safety of Medical Products <i>Chair: Steve Anderson</i></p> <p>1:30 pm M3-F.1 Hepatitis B and the safety of the US blood supply <i>Forshee RA, Biswas R</i> <i>US Food and Drug Administration</i></p> <p>1:50 pm M3-F.2 Updated risk assessment of potential transfusion-transmitted variant Creutzfeldt-Jakob Disease (vCJD) risks for recipients of plasma-derived blood clotting products in the United States <i>Yang H, Forshee RA, Walderhang WO, Anderson S</i> <i>US Food and Drug Administration</i></p> <p>2:10 pm M3-F.3 Describing the outcomes of islet cell transplantation as a stochastic process for the treatment of type 1 diabetes <i>Dabhary M, Yang H, Schneider B, Tiwari J, Anderson SA</i> <i>US Food and Drug Administration</i></p> <p>2:30 pm M3-F.4 Assessing risk of nosocomial legionnaires disease from environmental sampling - the limits of using a strict percent positivity approach <i>Allen J, Myatt T, Jessup D, Ludvig J, McCarthy J, MacIntosh D</i> <i>EH&E</i></p>	<p>1:30-3:00 PM <i>Fells Point</i></p> <p>M3-G Risk Analysis for Strategic Preparedness and Emergency Response <i>Chair: Stanley Levinson</i> <i>Sponsored by EISG</i></p> <p>1:30 pm M3-G.1 Risk analysis of Boston snowstorms <i>Karvetski CW, Collins RD, Vedomske MA</i> <i>University of Virginia</i></p> <p>1:50 pm M3-G.2 Resource allocation for regional hurricane risk mitigation <i>Legg MR, Davidson RA, Nozick LK</i> <i>University of Delaware</i></p> <p>2:10 pm M3-G.3 Probabilistic modeling of power distribution system during hurricanes using synthetic cities <i>Sharma R, Sprintson A, Guikema SD*, Singh C</i> <i>Texas A&M University</i></p> <p>2:30 pm M3-G.4 Multi-hazard risk analysis related to hurricanes <i>Lin N, Vanmarcke E, Oppenheimer M</i> <i>Princeton University</i></p>	<p>1:30-3:00 PM <i>Kent</i></p> <p>M3-H Symposium: Risk in Susceptible Subpopulations <i>Chair: M. Corrales</i> <i>Sponsored by DRSG</i></p> <p>1:30 pm M3-H.1 Laws, policies, guidance, and programs relevant to environmental health risk analysis for genetically susceptible subpopulations <i>Connor E, Greco S, Lynch M, Haemisegger E*</i> <i>Abt Associates Inc.</i></p> <p>1:50 pm M3-H.2 Data availability for analyzing sensitive groups defined by genetic variability in environmental health risk assessment <i>Corrales MA</i> <i>US Environmental Protection Agency</i></p> <p>2:10 pm M3-H.3 Considering genetic subgroups in the selection of uncertainty factors for reference concentrations and doses. <i>Lynch MK, Greco S, Corrales M</i> <i>Abt Associates, Inc</i></p> <p>2:30 pm M3-H.4 Can genetic markers, biomonitoring, and exposure assessment be used to identify at risk susceptible subpopulations? <i>Nylander-French LA, Jiang R, Kang-Sickel JC, French JE</i> <i>University of North Carolina, Chapel Hill, National Institute of Environmental Health Sciences</i></p>	<p>1:30-3:00 PM <i>Pride of Baltimore</i></p> <p>M3-I Topics in Benefits Assessment and Valuation <i>Chair: L. Robinson</i> <i>Sponsored by EBASG</i></p> <p>1:30 pm M3-I.1 Household bargaining and stated preference surveys: parental valuation of risk of IQ loss and ADHD <i>Hoffmann SA, Krupnick A, Adamowicz W</i> <i>Resources for the Future</i></p> <p>1:50 pm M3-I.2 Valuing morbidity using willingness to pay and health utility measures <i>Hammitt JK, Haninger K</i> <i>Harvard University, University of Pennsylvania</i></p> <p>2:10 pm M3-I.3 Pilot expert elicitation study of uncertainty in VSL when applied in an air pollution context <i>Roman HA, Stieb D, Walsh TL, Hammitt JK</i> <i>Industrial Economics, Health Canada, Harvard School of Public Health</i></p> <p>2:30 pm M3-I.4 Using constant values for different health risks: the potential to mislead <i>Robinson LA</i> <i>Independent Consultant</i></p>	<p>3:30-5:00 PM <i>Baltimore A</i></p> <p>M4-A Symposium: Risk Management Application in the Cement Manufacturing Industry <i>Chair: Stephen Zemba</i></p> <p>3:30 pm M4-A.1 Risk-based framework and applications for Portland cement manufacturing <i>Behan F</i> <i>US Government</i></p> <p>3:50 pm M4-A.2 Realities and conservatism in multi-pathway risk assessments <i>Linkov I, Ames M, Bennett E, Palma J</i> <i>USACE-ERDC-EL, Cambridge Environmental, Bioengineering Group, University of Lisbon, Portugal</i></p> <p>4:10 pm M4-A.3 Risk assessment of hazardous air pollutants from cement kilns: case study of a facility with extensive emission data <i>Zemba S, Ames M, Bennett E, Palma J</i> <i>Cambridge Environmental Inc.</i></p> <p>4:30 pm M4-A.4 Risk perception and participatory processes: that case of Secil – Outão cement facility <i>Palma-Oliveira J, Marques N, Antunes D, Maia N</i> <i>University of Lisbon</i></p>
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3:30-5:10 PM

Baltimore B

M4-B Symposium: Risk Assessment for the 21st Century. Role of the Regulator, the Regulated, the Risk Assessor and the Citizen

Chair: Peter Preuss

Sponsored by RCSG

3:30 pm M4-B.1

ATSDR approaches for stakeholder involvement in risk assessment processes
*Fowler BA, Abadin H, Chou S**
Agency for Toxic Substances and Disease Registry (ATSDR)

3:50 pm M4-B.2

California's move from public comment to stakeholder involvement
Alexeeff G, Dunn AJ, Hoover S, Faust J, Zeise L*
California Environmental Protection Agency

4:10 pm M4-B.3

Perspective of the American Chemistry Council: scientists as stakeholders: improving scientific discourse in EPA's process for developing risk assessments
Becker B
American Chemistry Council

4:30 pm M4-B.4

The Canadian perspective of stakeholder involvement in risk assessment processes
Krewski D, Chambers A, Birkett N
McLaughlin Centre for Population Health, University of Ottawa, Canada

4:50 pm M4-B.5

Participation of stakeholders in EPA's Integrated Risk Information System (IRIS) Program
Preuss P, Kadry A, Hammerstrom K, Flowers L
US Environmental Protection Agency

3:30-5:10 PM

Salon A

M4-C Evolution of Health Risk Assessment, Part 2

Chair: Steave Su

3:30 pm M4-C.1

Use of mode-of-action in risk assessment
Cox T
Cox Associates & University of Colorado

3:50 pm M4-C.2

Simulating complex activity patterns to estimate exposure
Ozkanak H
US Environmental Protection Agency

4:10 pm M4-C.3

What can Darwin tell us about pathways based risk assessment? Successes and challenges as we move into the 21st century
Faustman EM
University of Washington

4:30 pm M4-C.4

Role of biomonitoring in risk assessment
Hays SM, Aylward LL
Summit Toxicology

4:50 pm M4-C.5

Probabilistic risk assessment for human health
Cullen AC
University of Washington

3:30-5:00 PM

Salon E

M4-D Poster Platform: Risk Communication and Natural Hazards

Chair: Kjetil Rod

M4-D.1 The use of 3D technology to mimic real flooding experiences and consecutive coping responses
Zaalberg R, Midden CJH
Eindhoven University of Technology

M4-D.3 Citizens' perceptions of flood hazard adjustments: an application of the Protective Action Decision Model
Terpstra T, Lindell MK
University of Twente, Texas A&M University

M4-D.4 Exploring risk messages and messengers in the National Park System
Rickard LN, Newman S, McComas K
Cornell University, National Park Service

M4-D.5 Determinants of publics' worry of an imminent rockslide in Norway - What are the implications for communicating with the public?
Rod SK
Norwegian University of Science and Technology

M4-D.6 Promoting precautionary behavior through information-based policies: the case of Berkeley's soft-story engineering study ordinance
Rabinovici SJ
University of California, Berkeley

M4-D.7 Seismic risk perception and socio-economic vulnerability at the Nonoalco-Tlatelolco housing complex, Mexico City, Mexico
Novelo-Casanova DA, Antonio-Nakamura YA, Valdes-Perez V, Pineda-Loperena G
Universidad Nacional Autonoma de Mexico; Facultad de Ciencias Políticas y Sociales

M4-D.8 Public acceptance of nuclear power plant seismic safety
Oiso S
Institute of Nuclear Safety System, Incorporated

3:30-5:10 PM

Federal Hill

M4-E Risk, Precaution and Policy in Europe and China

Chair: Michael Rogers

Sponsored by RPLSG

3:30 pm M4-E.1
Risk management and the record of the precautionary principle in EU case law: mixed messages?
Rogers MD
Consultant

3:50 pm M4-E.2
Which paradigm represent the risk management administrative procedures in EC law? Two examples.
López-Jurado FB
University of Navarra

4:10 pm M4-E.3
The precautionary principle and false positives
Foss Hansen S, Tickner J
Technical University of Denmark

4:30 pm M4-E.4
Analysis of the practices of goal-oriented regulations to control industrial risks
Sahri O, Kordek M-A
INERIS, France

4:50 pm M4-E.5
Implementing health risk assessment in environmental decision-making in China
Duan X, Meng W
CRAES

<p>3:30-5:10 PM <i>Homeland</i> M4-F Application of GIS and Spatial Statistics as a Utility for Ecological Problem Solving <i>Chair: David Oryang</i> <i>Sponsored by BSSG</i></p>	<p>4:30 pm M4-F.4 Risk-based targeted surveillance: identifying areas and populations of importance for surveillance of high path avian influenza <i>Miller R, Farnsworth M.L., Franklin A.B., Freier J.E.</i> <i>US Department of Agriculture</i></p>	<p>3:30-5:10 PM <i>Fells Point</i> M4-G Risk-Based Engineering of Socio-Technical-Organizational Systems <i>Chair: Rachel Davidson</i> <i>Sponsored by EISG</i></p>	<p>3:30-5:10 PM <i>Kent</i> M4-H Applying Ecological Risk Assessment to Design and Stewardship of Containment Systems <i>Co-Chairs: James Clarke, Kurt Frantzen</i> <i>Sponsored by ERASG</i></p>	<p>3:30-5:00 PM <i>Pride of Baltimore</i> M4-I From Creation to Destruction: Life Cycle Analysis of Nanotechnology <i>Chair: Jo Anne Shatkin</i></p>
<p>3:30 pm M4-F.1 Assessing the risk of contact and transmission of bovine tuberculosis between cattle and deer for the purpose of regionalization <i>Miller R, Portacci K, Bush E, Freier J</i> <i>USDA Animal and Plant Health Inspection Services</i></p>	<p>4:50 pm M4-F.5 Spatio-temporal modeling of seed and pollen-mediated gene transfer from genetically modified plants <i>Oryang D, Auclair A, Chioino C</i> <i>Food and Drug Administration, US Department of Agriculture</i></p>	<p>3:30 pm M4-G.1 Socio-technical risk analysis methodology for aviation safety <i>Mohaghegh Z, Mosleb A</i> <i>University of Maryland</i></p>	<p>3:30 pm M4-H.1 Long-term performance assessment for engineered containment systems: building model confidence and stakeholder acceptance <i>Clarke JH</i> <i>Vanderbilt University</i></p>	<p>3:30 pm M4-I.1 Case studies of nano-titanium dioxide by US EPA <i>Wang A, Davis JM</i> <i>US Environmental Protection Agency</i></p>
<p>3:50 pm M4-F.2 Rift Valley Fever risk mapping: contribution to response planning and control <i>Anyamba A, Linthicum K.J, Small K, Britch SC, Smith M, Pak E, Chretien J, Tucker C, Witt C</i> <i>NASA Goddard Space Flight Center, US Department of Agriculture Center for Medical, Agricultural & Veterinary Entomology, Walter Reed Army Institute for Research</i></p>	<p>4:30 pm M4-F.3 Use of geospatial patterns in targeting quarantine pests at US ports <i>Auclair A, Chioino C, Oryang D</i> <i>US Department of Agriculture, US Food and Drug Administration</i></p>	<p>3:50 pm M4-G.2 Residual risk is transforming a federal agency <i>Yoe CY</i> <i>College of Notre Dame of Maryland</i></p>	<p>3:50 pm M4-H.2 Melding science and stakeholders to achieve solutions at Amchitka Island: breaking the log-jam in the Department of Energy's nuclear weapons complex <i>Burger J, Powers C, Gochfeld M, Kosson D</i> <i>Consortium for Risk Evaluation with Stakeholder Participation</i></p>	<p>3:50 pm M4-I.2 Investigating the life cycle risks of a nanomaterial in paint using nano LCRA <i>Larsen W, Shatkin JA</i> <i>CLF Ventures</i></p>
<p>4:10 pm M4-F.3 Use of geospatial patterns in targeting quarantine pests at US ports <i>Auclair A, Chioino C, Oryang D</i> <i>US Department of Agriculture, US Food and Drug Administration</i></p>	<p>4:50 pm M4-F.4 Quantified trust as a driver of the multilateral value proposition <i>Vedomské MV, Crowther KG</i> <i>University of Virginia</i></p>	<p>4:10 pm M4-G.3 Assessing consumer product packaging related risk due to organizational structure <i>Moyer DC</i> <i>Michigan State University</i></p>	<p>4:10 pm M4-H.3 Planning for long-term stewardship at Brownfields sites <i>Frantzen KA, Richardson D, Soler S</i> <i>Kleinfelder, Inc., Terradex, Georgetown Special Taxing District</i></p>	<p>4:10 pm M4-I.3 Managing life cycle risks of nanomaterials in the US Army <i>Scanlon KA, Lloyd SL</i> <i>Concurrent Technologies Corporation</i></p>
		<p>4:30 pm M4-G.4 Defensive dissuasion in security risk management <i>McGill WL</i> <i>The Pennsylvania State University</i></p>	<p>4:30 pm M4-H.4 Long-term performance of engineered containment systems: approach to incorporating ecological processes into performance assessment <i>Traynham B, Clarke J, Burger J, Waugh J</i> <i>Vanderbilt University</i></p>	<p>4:30 pm M4-I.4 EPA nanomaterial case studies and ranking of research priorities <i>Davis JM</i> <i>US Environmental Protection Agency</i></p>
			<p>4:50 pm M4-H.5 Renovation of landfill covers for uranium mill tailings <i>Waugh WJ, Benson CH, Albright WH, Smith GM, Bush RP</i> <i>S.M. Stoller Corporation</i></p>	

6:00-8:00 pm

Poster Session

Decision Analysis & Risk

P.1 Identifiability of bioaerosol transport and risk models by environmental sampling

Hong T, Gurian P
Drexel University

P.2 Microbial risk assessment of exposure to biosolids-associated pathogens

Teng J, Gurian PL, Olson MS, Kumar A, Zhang H, Harte C, Olson B, Downs K
Drexel University

P.3 Acceptable microbial risk: benefit-cost analysis of a boil water order for cryptosporidium

Ryan MO, Duzjinski P, Gurian PL, Haas CN, Rose JB
Drexel University

P.4 Valuing environmental detection of a B. anthracis release

Madsen JM, Gurian PL
Drexel University

P.5 Development and evaluation of a mechanistic dose response model for inhalation of Bacillus anthracis spores.

Weir MH, Haas CN
Drexel University

P.6 Stakeholder adaptive capacities as key system drivers for the management of complex environmental problems - comparative analysis of national nuclear waste management policies

Letourneau C
University of Nevada, Las Vegas

P.8 Concepts and characteristics of causation, a clarification of Hill's considerations

Cormier SM, Suter II GW
US Environmental Protection Agency

P.9 The evolution of a theory for environmental assessment

Cormier SM, Suter II GW
US Environmental Protection Agency

P.10 Progress on cumulative risk assessment guidance at EPA

Bangs GW, Bollweg G, Galizia A*, Lonit A, Maurice C, Serveiss V, Victory WW
US Environmental Protection Agency

P.11 Nuclear threat risk assessment for Azerbaijan

Bayramov AA
Institute of Physics Azerbaijan National Academy of Sciences

P.12 Statistical aspects of risk assessment of chemicals, using graphical modeling

Fujii T, Kageyama M, Gamou M, Kanafuji K, Tsubaki H
The Institute of Statistical Mathematics

P.13 Derivation of QALY based dose-response relationship from animal data for the purpose of risk trade-off analysis of chemical substances

Gamo M, Fujii T, Kageyama M, Hojo R, Gamo Y, Kishimoto A, Kanefuji K, Tsubaki H

National Institute of Advanced Industrial Science and Technology (AIST), The Institute of Statistical Mathematics

P.14 DECERNS: new web-based software tool for multicriteria decision analysis

Gritsyuk S, Tkachuk A, Babutski A, Vasilenkaya M, Mirzeabasov O, Didenko V, Yatsalo B, Sullivan T
LATE

P.16 Searching and pruning risk factors in the logit model

Kawasaki Y
The Institute of Statistical Mathematics

P.17 Analysis of low dose synergy literature for use in screening chemical co-exposures for risk assessment

Mumtaz M, Embry MR
ATSDR, ILSI Health and Environmental Sciences Institute

P.18 Correlation between prediction accuracy and number of experts: an empirical study

Shirazi CH, Mosleh A
Center for Risk and Reliability, University of Maryland, College Park

P.19 Risk management in the pharmaceutical sector

Silva A
University of Navarra

P.21 Applying risk-as-feeling approach for modeling positive and negative affects in operator decision making

Yemelyanov AM, Yemelyanov AA
Georgia Southwestern State University

P.22 Cost-effectiveness of investments in defense of critical infrastructure

Jamshidi T, Bier VM
University of Wisconsin, Madison

P.23 Deterring and detecting the smuggling of nuclear weapons in containers freight

Bier VM, Haphurimat N, Willis H
University of Wisconsin, Madison, RAND Corporation

P.24 Port security (PortSec) risk analysis and resource allocation I: methodology

Barrett AM, Orosz MD, Southwell C, Bakir NO, Maya I, Chen J
University of Southern California

P.25 Port security (PortSec) risk analysis and resource allocation II: application

Orosz MD, Barrett AM, Bakir NO, Southwell C, Chen J, Maya I
University of Southern California

P.26 Setting a standard of proof: a way to introduce risk analysis concepts

Brand KP
University of Ottawa

P.27 Approximate infective viral load of non-pasteurized liquid egg from a highly pathogenic avian influenza-infected, undetected flock

Weaver JT, Clouse TL, Malladi S, Ebel ED, Schlosser WD, Golden NJ
United States Department of Agriculture, Animal Plant Health Inspection Service, Veterinary Services

P.28 Arsenic and tobacco-use related disease risk

Marano KM, Wilson CW, Kathman SJ, Nayfal ZS, Garner CD
RJ Reynolds Tobacco Company

P.29 Advances and needs associated with the Technological Risk Prevention Plan in the French regulation

Alvarez A
Worcester Polytechnic Institute

P.30 Risk of what? Using enterprise risk management to consider national interests in a dynamic international context

Decker D
Booz Allen Hamilton, Harvard University

P.31 Characterizing risks of oil spills

Farber G
US Environmental Protection Agency

Risk Policy & Law

P.32 Incoming health risk at land use projects

Holtzman DA
PCR Services Corporation

P.33 A conceptual mapping model applied to Canadian regulations on dangerous goods transportation and storage

Abdelaziz Khadraoui AK, Nathalie de Marcellis-Warin NM, Benoit Aubert BA
Centre interuniversitaire de recherche en analyse des organisations CIRANO

P.34 An alternative to the existing dominant of risk analysis & management in systems providing population safety: human centered risk approach vs facility centered risk approach

Eremenko VE
International Nonprofit and Nonpartisan Organization for Safety and Survival, USARF

P.35 Pilot review process for submissions to EPA's high production volume chemical challenge

Patterson J, Franz C, Dourson M, Matthews H, Sandusky C
Toxicology Excellence for Risk Assessment (TERA), American Chemistry Council, Matthews Toxicology Consulting Company, Physician's Committee for Responsible Medicine

P.37 Exposure to nanoscale materials via the oral route

Abbott LC, Deerfield K, Froggett S
US Department of Agriculture

P.38 Risk communication and challenges of nanotechnology in third world countries

Adesina SA
Florida International University

P.39 What has life cycle assessment told us about nanotechnology?

*Lloyd SM, Scanlon KA
Concurrent Technologies Corporation*

P.40 Analysis of risk assessment of some nanomaterials

*Bayramov AA
Institute of Physics Azerbaijan National Academy of Sciences*

Ecological Risk Assessment

P.41 Del Plata Basin coastal monitoring program: the use of native species as novel sentinels of anthropogenic impact (a preliminary approach)

*Dopchiz LP, Michieli JL, Razetto G, Asaroff P, Santa AM, Demichelis SO
J.F. Kennedy University Argentina*

P.42 Modeling the uptake of polynuclear aromatic hydrocarbons from soil into plant foliage, roots and seeds

*Burris JB
Syracuse Research Corporation*

P.43 Perception of ecological risks to water environments in southern Nevada

*Kiriscioglu T
University of Nevada, Las Vegas*

Mathematics, Computation & Engineering

P.44 The development of computational tools for risk and consequence analysis

*Rosas CA, Fajardo HC, Munoz F
Universidad de los Andes*

P.45 Influence of heliogeophysical and space factors on failures of systems of power supply

*Bayda S
Federal Center of Science and High Technologies, All Russian Science Research Institute for Civil Defense and Emergency, EMERCOM of Russia*

P.46 An examination of base cost uncertainty in risk based estimates

*Cretu O, Berends T, Stewart R
WS Department of Transportation*

Other

P.47 Results of the SRA specialty group study

*Gwikema SD, LaRocca S
Johns Hopkins University*

P.48 Assessing the risk of food-borne illness caused by norovirus transmitted in foodservice systems

*Li D, Schaffner D
Rutgers University*

P.49 Emergent skewed distributions of illness severity and a general mixture dose-response function

*Englehardt JD
University of Miami*

Economics & Benefits

P.50 Transport related noise exposition in Santiago and the social benefits of the implementation of the new city transport system

*De La Maza C, Toba E, Cifuentes L
Pontificia Universidad Católica de Chile*

P.51 Policy-induced risk transfer of lead in Asia: an analysis using the combination of the CGE model and the environmental dispersion model

*Makino R
National Institute of Advanced Industrial Science and Technology*

P.52 The air quality and human health effects of integrating utility scale batteries into the New York State electricity grid

*Gilmore EA, Adams PJ, Apt J, Lave LB
Carnegie Mellon University*

P.53 Benefits and costs of the new national fine particulate matter standard for Chile

*Rodriguez M, De La Maza C, Cifuentes L
Pontificia Universidad Católica de Chile*

P.54 A complex adaptive systems approach to cost-benefit analysis

*Russo HA
George Mason University*

P.55 Food product safety and competition in the US food retail industry: implications for public policy

*Mojduszka EM
US Department of Agriculture*

P.56 Presenting risk mitigation cost tradeoffs to privately informed decision makers

*Ballard BD
GRA, Inc*

Dose Response

P.57 Naphthalene research: the relevance of tumors in rodents to human risk assessment

*LeHuray AP, Bird MG, Hammon TL, Juba MH, Lewis RJ, Reitman F, Sun T-J, White RD, Wise K
Naphthalene Council, ExxonMobil Biomedical Sciences, Inc., ConocoPhillips, Koppers, Inc., Shell, Chevron, American Petroleum Institute*

P.58 Hypothesis-Based Weight of Evidence (HBWoE) evaluation of naphthalene - carcinogenic hazard assessment and mode of action

*Bailey L, Rhomborg L
Gradient Corporation*

P.59 Using the human relevance framework as a guide to naphthalene research

*Bird MG, Lewis RJ, Piccirillo VJ
ExxonMobil Biomedical Sciences, Inc., VJP Consulting*

P.60 Time-dose-response model

*Huang Y, Haas CN
Drexel University*

P.61 Assessing the risks of chemicals in the environment: are pharmaceuticals different?

*Cragin DW
Merck & Co.*

P.62 Tolerance intervals on bioassay test results to assess total variability in unbalanced multi-components of variance settings

*Feder PI, Ma Z
Battelle*

P.63 Exposure to metal mixtures and kidney function: investigating health disparities

*Fox MA, Chari R
Johns Hopkins University*

P.64 Impact of integrating age-specific water intake rates into derivation of Minnesota groundwater guidance

*Goeden H, Moyer P, Hassan I, Greene C
Minnesota Department of Health*

P.66 Risk assessment of lead intake from food in Japan

*Koizumi Na, Kumada Hi
Commissioner, Food Safety Commission, Japanese Government*

P.68 Health assessment of occupational exposure among motorcycle-
machine repairmen

*Ho WC, Lin MH, Chen CY, Lin JD, Chen CJ, Lia JS, Wu TN
China Medical University*

P.69 Demonstration of how sensitive subpopulations might be considered in regulatory benefits analyses

*Greco SL, Lynch MK, Corrales M
ABT Associates Inc.*

P.70 An evaluation of the mode of action framework for mutagenic carcinogens: chromium VI

*Akerman G, McCarroll NE, Chen J, Keshava N, Kligerman A, Rinde E
US Environmental Protection Agency*

P.71 Is it safe? Analysis of compact fluorescent lamps breakage and potential mercury exposure

*Nance P, Patterson J, Willis A, Kroner O, Dourson M, Foronda N
Toxicology Excellence for Risk Assessment; New Zealand Ministry of Health*

P.72 Inhibition of acetylcholinesterase in a farmworker population exposed to organophosphate pesticides

*Griffith WC, Vigoren EM, Coronado GD, Thompson B, Faustman EM
University of Washington, Fred Hutchinson Cancer Research Center*

P.73 In vitro-in vivo extrapolation of the dose-response relationship for cellular perturbations by toluene using a cellular dosimetry model

*Peyret T, Krishnan K
University of Montreal, Montreal, Canada*

P.74 Development of community based risk assessment system for integrated environmental risk management in Korea

*Shin DC, Yang JY, Lim YW, Kim JY, Ann YJ, Bae HK
Yonsei University, Korea*

- P.76** Critical evaluation of the hazardous substances data bank (HSDB) for use in current and future risk assessments
Dourson M, Jayjock M, Maier M, Willis A, Parker A, Haber L, Patterson J Toxicology Excellence for Risk Assessment (TERA)
- P.77** Application of Disability-Adjusted Life Year (DALY) in a food industry context
Kan-King-Yu D, Moretti D, Membre JM Unilever Safety & Environmental Assurance Centre, Unilever Food and Health Research Institute
- P.78** Glial cell as makers of manganese-induced neurotoxicity
Alaimo A, Gorojod RM, Sapienza CE, Wolansky M, Kotler ML University of Buenos Aires
- P.80** Utility of a C6-glioma system for exploratory risk assessment of environmentally relevant mixtures of insecticides.
Romero DM, Alaimo A, Gorojod R, Kotler ML, Wolansky MJ Argentine National Research Council - University of Buenos Aires
- P.82** Toxicological analysis to determine the TDI of melamine in food
Hsieh DPH, Chiang CF, Chiang PH, Wen CP China Medical University (DPHH CFC), National Health Research Institutes (PHC CPW)
- P.83** Development of dose-response curves using a Bayesian approach to model variation in inoculate infectivity
Mitchell-Blackwood J, Gurian PL, Thrane B, Taft S, Lee R, Hines S Drexel University
- P.84** Including time to response in microbial dose-response models
Huang Y, Haas CN Drexel University
- P.85** The effect of ongoing exposure dynamics in dose response relationships
Mayer B, Eisenberg J, Serra J, Koopman J University of Michigan
- P.86** Quantitative risk assessment on the effect of *Listeria monocytogenes* contamination in deli meats originating from manufacture and retail, on listeriosis cases
Pradhan AK, Ivanek R, GrÜhn YT, Bukowski R, Geornaras I, Sofos J, Wiedmann M Cornell University, Texas A&M University, Colorado State University
- P.87** Variation in *Listeria monocytogenes* dose response in relation to Internalin A subtypes
Chen Y, Ross WH, Whiting RC, Van Stelten A, Nightingale KK, Wiedmann M, Scott VN Grocery Manufacturers Association, Health Canada, Exponent, Colorado State University, Cornell University
- P.88** Quantitative microbial risk assessment for salmonella in peanut butter
Schaffner DW Rutgers University
- P.89** Modeling and risk assessment for the growth of salmonella on cut tomatoes
Schaffner DW, Pan WJ Rutgers University
- P.90** Estimating salmonella attribution from chicken, pork and ground beef in Waterloo Region using a quantitative risk assessment approach
Phinney R, Otten A, Fazil A Public Health Agency of Canada, Canada
- P.91** Community-associated *Clostridium difficile* infection: a quantitative population based model
Otten A, Fazil A Public Health Agency of Canada, Canada
- P.93** Application of XML to improving information access for food safety risk assessment: AllerML - An ontology and markup language for allergens
Gendel SM, Ivancic O, Power TD, Schein CH, Braun W US Food and Drug Administration, University of Texas Medical Branch
- P.94** Risk/benefit analysis for food supplements - the lessons from amino acids
Rogers MD International Council on Amino Acid Science
- Risk Communication**
- P.95** Identification information needs for risk management about methyl mercury
Yamaguchi H Kyoto University
- P.97** Renewable fuels: public and environmental health model
Biksey TM WSP Environment, Energy and University of Pittsburgh
- P.98** Food Risks: a case study about the food control system in Brazil
Cassiano AC Santa Catarina Federal University
- P.99** Rocket science for the rocket scientist? An experimtnal study of the effects of expert-layperson communicaiton on knowledge, attitudes, and levels of fear regarding nuclear energy
Evans SA University of Maryland
- P.100** Air pollution: strong social distrust of authorities
Gutierrez VV Universidad Diego Portales, Pontificia Universidad Catolica de Chile
- P.101** ASSARIS: an information sharing system for disaster risk communication
Maeda Y, Nakano T, Matsuda K Shizuoka University, Ufit Co. Ltd., Ube Information Systems, Inc.
- P.102** Risk communication for microbial risk assessment
Marcum T, Julius C, Luke N Camp Dresser & McKee Inc., Denver CO, Edison, NJ
- P.103** Tall ladders, hot flames: exploring the culture of occupational safety trainings of volunteer firefighters
Rickard LN, Brown HC Cornell University
- P.104** Risk information sufficiency in an emerging information environment
Scherer CW, Yuan C, Levitan L, Rickard L, Lu L Cornell University
- P.105** Seeing and believing: exploring public understanding of environmental risk maps
Severson DJ, Vatovec CM University of Wisconsin-Madison
- P.106** Caffeine intakes from beverages by pre-adolescent and adolescent children
Storey M, Coletta F, Anderson P American Beverage Association, Consultant, Coletta Consulting
- P.108** Advancing a theory of normative appraisal-based risk perception
Turner MM, Lapinski MK, Rimal RN University of Maryland, Michigan State University, Johns Hopkins University
- P.109** Value orientations and sustainable outdoor recreation and tourism
Winter PL, Bricker KS, Schultz JR US Forest Service, University of Utah
- P.110** Application of mental model in climate change-induced disaster risk: developing an equitable comparative methodology
Dhar Chowdhury P, Haque CE University of Manitoba
- P.112** Integrated approach to risk management and risk communication: cement manufacturing case study
Palma-Oliviera J, Abreu C Faculdade de Psicologia e de Ciências da Educação Alameda da Universidade

P.113 Development of training program for better understanding climate change risk: applying focus group interview method

Aoyagi-Usui M

National Institute for Environmental Studies, Japan

P.114 Communicating the risks of asbestos exposure: a review of workplace and community based programs

Nicol AM, Hurrell AC

University of British Columbia

P.115 A risk-based approach to shuttle transition workforce communications

Krishen L, Jabn J

Futron Corporation

P.116 Psychological reactance and news coverage of health risks: examining the moderating role of personality traits on perceived threat and freedom restoration

Fung T, Hillback E

University of Wisconsin-Madison

P.117 Risk fatigue: the dark side of risk communication

Cummings CL

North Carolina State University

P.118 Frame construction and contestation over aided death: how journalists use physicians as sources

Teggatz JL

University of Wisconsin, Madison

P.119 Environmental risk indicators to motivate environmentally responsible behavior

Turaga RMR, Borsuk ME

Dartmouth College

Exposure Assessment

P.121 Analytical and statistical approach for effective evaluation of dioxins and furans

Julias C, Kirchner S, Luke N

Camp Dresser, McKee Inc., Edison, NJ

P.122 PCB risks to northeastern Manitoba residents from consumption of caribou and fish

Naiman J, Zeimer M, Rogers J, LaKind JS, Paul P, Ghosh U

The Park School, LaKind Associates, LLC, University of Maryland, Baltimore County

P.124 Relative risk contribution of low dose endocrine disrupters to observed health endpoints in humans

Bastaki M

The Evergreen State College

P.125 Longitudinal study of exposure to organophosphate pesticides comparing farmworker and non-farmworker populations

Vigoren EM, Griffith WC, Coronado GD, Thompson B, Faustman EM

University of Washington, Fred Hutchinson Cancer Research Center

P.126 Arsenic bioavailability in soil: evidence from in vitro and microprobe studies

LaVelle JM

Camp Dresser & McKee Inc

P.127 Health risk assessment of personal exposure to heavy metals in drinking water in one typical rural county in China

Duan X, Wang ZS, Zhang W, Zhang JL

CRAES

P.128 Application of WHO IPCS characterization and communication of uncertainties in two case study assessments of human exposure to chemical risks

Zeniä LA, Schümann M, Reina V, Heine-meyer G

Joint Research Centre of the European Commission - Hamburg State Department for Social Affairs - Federal Institute for Risk Assessment

P.129 Uncertainty characterization and visualization within the HEIMT-SA project

Zeniä LA, Blangiardo M, Shaddick G, Denby B, Pebesma E, Sabel C

Joint Research Centre of the European Commission, Imperial College London, University of Bath, Norwegian Institute for Air Research (NILU), University of Münster

P.130 Assessment of dermal hazards via the new NIOSH skin notation strategy: lessons learned

Gadagbui B, Maier A, Kroner O, Dotson G

TERA, Centers for Disease Control

P.131 A systematic sensitivity analysis of a screening-level multipathway risk tool

Henning CC, Shapiro AJ, Turley AT, Burch DF, Smith RL

ICF International

P.133 Modeling the spatial and demographic distribution of human exposure and risk from residential radon in the United States

Chabine T, Subramanian SV, Zartarian V, Xue J, Schultz B, Levy JI

Harvard University

Current Topics/Works in Progress

P.134 A Dynamic Data Fusion Based Modelling Tool for Collaborative Computational Toxicology and Health Risk Analysis

Mohapatra AK

HEALTH CANADA

P.135 Treatment of uncertainty from QSAR models in risk assessment

Oberg T

University of Kalmar

P.136 Concepts and Measures of International Business Risk

Alday SS

The University of Sydney

P.137 Post audit of risk management measure for decabromodiphenyl ether in Japan

Tokai A, Yamamoto Y, Watanabe S

Osaka University

P.138 Stakeholder involvement in environmental risk analysis: Assessing impacts of genetically modified maize on South African biodiversity

Dana G, Kapuscinski AR, Donaldson JS
University of Minnesota, Dartmouth College, South African National Biodiversity Institute

<p>10:30 AM-Noon <i>Baltimore A</i></p> <p>T2-A Environmental Risk and Climate Change <i>Chair: Mark Borsuk</i> <i>Sponsored by DARSG</i></p>	<p>10:30 AM-Noon <i>Baltimore B</i></p> <p>T2-B Game Theory vs. Probabilistic Risk Analysis for Terrorism Risks <i>Chair: Vicki Bier</i> <i>Sponsored by DARSG</i></p>	<p>10:30 AM-Noon <i>Salon A</i></p> <p>T2-C Symposium: Wildfire, Risk and Decision Making <i>Co-Chairs: Robyn Wilson, Pat Winter</i> <i>Sponsored by RCSG</i></p>	<p>10:30 AM-Noon <i>Salon E</i></p> <p>T2-D Poster Platform: Childhood Risk <i>Chair: James Quackenboss</i> <i>Sponsored by DRSG</i></p>	<p>T2-D.7 Assessment of body mass index and ozone related to pulmonary function in young children using hierarchical linear model <i>Ho CC, Ho WC, Lin MH, Hsu HT, Lien CH, Li YF, Shiao GM, Chen PC, Lin RS</i> <i>China Medical University</i></p>
<p>10:30 am T2-A.1 Integrated uncertainty analysis to support effective environmental decision-making <i>von Stackelberg KE</i> <i>University</i></p>	<p>10:30 am T2-B.1 How to assess the value of critical infrastructure and determine its optimal defense <i>Alderson DL, Brown GG, Carlyle WM</i> <i>Naval Postgraduate School</i></p>	<p>10:30 am T2-C.1 Improving wildfire risk management decisions <i>Arvai JL</i> <i>Michigan State University</i></p>	<p>T2-D.2 Mercury emissions and autism rates in Texas children <i>LaRocca S, Guikema S</i> <i>Johns Hopkins University</i></p>	<p>T2-D.8 Use of biomarkers, statistical imputation techniques, and PBPK modeling to assess dose response for the effects of gestational exposure to chlorpyrifos on birth weights and other developmental effects <i>Goble R, Hattis D, Whyatt R</i> <i>Clark University, Columbia University</i></p>
<p>10:50 am T2-A.2 Use of multi-scale models and scenario projections to reduce the risk of climate change effects on the distribution of endangered shorebirds on Florida military installations <i>Kiker GA, Linkov I, Fischer R, Munoz-Carpena R, Akcakaya R, Martinez C, Kim JB</i> <i>University of Florida</i></p>	<p>10:50 am T2-B.2 PRA vs. game theory vs. (fill in the blank) in terrorism risk assessment: the necessary debate that misses the point <i>Ross RG</i> <i>Department of Homeland Security</i></p>	<p>10:50 am T2-C.2 Effects of message framing and previous exposure on support for fuels management <i>Ascher TJ, Wilson RS</i> <i>The Ohio State University</i></p>	<p>T2-D.3 A mathematical model for describing NHANES height growth data: a tool for risk assessment <i>Walker JT, Walker OA</i> <i>US Environmental Protection Agency</i></p>	
<p>11:10 am T2-A.4 Assessing the risk of catastrophic economic outcomes using a stochastic integrated assessment model of climate change <i>Gerst MD, Howarth RB, Borsuk ME*</i> <i>Dartmouth College</i></p>	<p>11:10 am T2-B.3 Robust optimization model for defensive resource allocation against a strategic attacker with uncertain attributes <i>Nikoofal ME, Zhuang J</i> <i>University at Buffalo, The State University of New York at Buffalo</i></p>	<p>11:10 am T2-C.3 A longitudinal examination of risk reduction behaviors of residents in fire prone communities <i>Toman E, Bennett J, Shindler B, McCaffrey S</i> <i>Ohio State University, Oregon State University, US Forest Service Northern Research Station</i></p>	<p>T2-D.4 Modeling organophosphate dose effects on urban low-income children in the presence of other chemical and non-chemical stressors <i>Wason SC, Smith TJ, Evans JS, Perry MJ, Levy JI</i> <i>Harvard School of Public Health</i></p>	
	<p>11:30 am T2-B.4 Probabilistic intelligent adversary risk analysis <i>Parnell G, Smith C</i> <i>United States Military Academy</i></p>	<p>11:30 am T2-C.4 Assessing the prevalence of risk-based decision errors among federal fire managers <i>Wilson RS, Winter PL, Ascher T, Maguire L</i> <i>The Ohio State University, US Department of Agriculture Forest Service, Duke University</i></p>	<p>T2-D.5 Risk assessment for infants exposed to Bisphenol A <i>Bastaki M, Kappler P, Ryder V, Schutz Z, Woodsmith T</i> <i>Evergreen State College</i></p>	
			<p>T2-D.6 Implications of physiological and kinetic differences for child risk: emphasis on the inhalation route <i>Haber LT, Gentry PR, Gadagbui B, Parker A, Abraham I, Dourson ML, Kehrman M, Adamou T, Grant RL, Krishnan K</i> <i>TERA, ENVIRON, University of Montreal, Texas Commission on Environmental Quality</i></p>	

<p>10:30 AM-Noon <i>Federal Hill</i></p> <p>T2-E Symposium: Regulatory Review, Regulatory Design, and the New Obama Executive Order <i>Chair: Stuart Shapiro</i> <i>Sponsored by RPLSG</i></p> <p>10:30 am T2-E.1 Obama, Clinton, Reagan, and Carter: four decades of executive orders on regulation <i>Wiener JB</i> <i>Duke University</i></p> <p>10:50 am T2-E.2 Evaluating the impact of cost-benefit analysis <i>Shapiro S, Morrall J</i> <i>Rutgers University</i></p> <p>11:10 am T2-E.3 Regulations: what can go wrong <i>Williams RA</i> <i>George Mason University</i></p> <p>11:30 am T2-E.4 Risk mitigation: implications of uncertainty and variability inherent in dose response functions, exposure levels, and regulatory effectiveness <i>Stivers AE, Brown JB</i> <i>Food and Drug Administration</i></p>	<p>10:30 AM-Noon <i>Homeland</i></p> <p>T2-F Interagency Retail L. Monocytogenes Risk Assessment <i>Chair: Janelle Kause</i> <i>Sponsored by BSSG</i></p> <p>10:30 am T2-F.1 Overview of the use of L. monocytogenes risk assessments to guide agency decisions <i>Kause J, Dennis S</i> <i>Government</i></p> <p>10:50 am T2-F.2 Use of molecular subtyping and surveillance data to support risk assessments for Listeria monocytogenes <i>Wiedmann M</i> <i>Cornell University</i></p> <p>11:10 am T2-F.3 A discrete event model to track Listeria monocytogenes in the retail environment. <i>Pouillot R, Gallagher DL</i> <i>CFSAN/FDA, Virginia Tech</i></p> <p>11:30 am T2-F.4 Observational study of food handling practices in retail deli departments <i>Lubran MB, Pouillot R, Calvey EM, Meng J, Dennis S</i> <i>University of Maryland</i></p>	<p>10:30 AM-Noon <i>Fells Point</i></p> <p>T2-G Symposium: Overcoming Risks Inherent to Renewable Energy Technologies and Systems <i>Chair: Kenneth Crowther</i> <i>Sponsored by EISG</i></p> <p>10:30 am T2-G.1 Regional portfolios of renewable energy <i>Collins RD, Crowther KG</i> <i>University of Virginia</i></p> <p>10:50 am T2-G.2 Probabilistic risk assessment of regional renewable energy <i>Serbanescu D</i> <i>Private Risk Analysis Expert</i></p> <p>11:10 am T2-G.3 Wind turbine rotor fragment risk analysis <i>Larwood SM, van Dam CP*</i> <i>University of the Pacific, University of California, Davis</i></p> <p>11:30 am T2-G.4 Safety and security issues for the multi-crystalline-silicon-based photovoltaic life cycle <i>Colli A, Serbanescu D</i> <i>Scandpower Risk Management Inc.</i></p>	<p>10:30 AM-Noon <i>Kent</i></p> <p>T2-H Application of Spatial Decision Support Tools, and Systems for Multi-Criteria Environmental Problems <i>Chair: Terry Sullivan</i> <i>Sponsored by DARSG</i></p> <p>10:30 am T2-H.1 Overview of decision support systems for land use planning <i>Sullivan T, Yatsalo B, Grebenkov A, Linkov I</i> <i>Brookhaven National Laboratory</i></p> <p>10:50 am T2-H.2 Risk-based land management with the use of spatial decision support system DECERNS WebSDSS <i>Yatsalo B, Didenko V, Gritsyuk S, Tkachuk A, Mirzeabasov O, Sullivan T, Linkov I</i> <i>LATE</i></p> <p>11:10 am T2-H.3 Application of DECERNS SDSS to wildlife sanctuaries: eutrophic bog case study <i>Grebenkov AJ, Yatsalo BI, Lukashevich AG, Pluta SV, Babyka DA, Tkachuk AN, Gritsuk SV, Shipilov DE, Mirzeabasov OA</i> <i>UNDP Belarus Country Office</i></p> <p>11:30 am T2-H.4 Trophictrace bioaccumulation model enhancements <i>Tkachuk A, Fredette T, Guza-Pabst O, Foran C, Huang I, Moberg E, Jacques T, Linkov E, Bridges T, Linkov I</i> <i>US Army Engineer Research and Development Center, Carnegie Mellon University, MIT</i></p>	<p>10:30 AM-Noon <i>Pride of Baltimore</i></p> <p>T2-I Symposium: Advances in Environmental Risk Assessment for Nanomaterials under Uncertainty <i>Chair: Elizabeth Casman</i></p> <p>10:30 am T2-I.1 Estimating environmental nanomaterial emissions from production data <i>Robichaud C, Wiesner MR, Casman E</i> <i>Duke University, Carnegie Mellon University</i></p> <p>10:50 am T2-I.2 A probabilistic network modeling approach for nanoparticle risk assessments <i>Money ES, Reckhow KH</i> <i>Center for the Environmental Implications of Nanotechnology</i></p> <p>11:10 am T2-I.3 Using risk ranking and reasoning by analogy for nanoparticle risk assessment and standard setting <i>Christian Beaudrie CB, Milind Kandlikar MK, Terre Satterfield TS, Gurumurthy Ramachandran GR</i> <i>University of British Columbia</i></p> <p>11:30 am T2-I.4 Advances in laboratory techniques and decision tools to enhance environmental risk assessments of engineered nanomaterials <i>Johnson D, Linkov I, Kennedy A, Stanley J, Coleman J, Chappell M, Bednar T, Kirgan R, Steevens J</i> <i>US Army Engineer Research and Development Center</i></p>
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1:30-3:10 PM

Baltimore A

T3-A Weight-of-Evidence Frameworks: Design and Care Study Applications

Chair: Ann Bradley

Sponsored by DARSG

1:30 pm

T3-A.1

A systematic weight-of-evidence framework for reaching scientific consensus: design and application

Bradley JA, Durda J

Integral Consulting

1:50 pm

T3-A.2

Using a structured approach - "hypothesis-based weight-of-evidence" - in evaluating uncertainty about human cancer hazard potential

Rbomberg LR

Gradient Corp.

2:10 pm

T3-A.3

A general framework and specific frameworks of weighing evidence in environmental assessments

Suter GW, Cormier SM

US Environmental Protection Agency

2:30 pm

T3-A.4

Explanations and weight-of-evidence analysis

Douglas HE

University of Tennessee

2:50 pm

T3-A.5

Review of weight of evidence to synthesize and manage environmental risks

Cormier S, Linkov I, Gold JI, Satterstrom

FK, Loney D, Bridges TS*

US Environmental Protection Agency, US Army Engineer Research and Development Center, University of Pennsylvania, Harvard University, Massachusetts Institute of Technology

1:30-3:00 PM

Baltimore B

T3-B Probabilistic and Agent-Based Risk Analysis in DHS

Chair: Steve P. Bennett

Sponsored by DARSG

1:30 pm

T3-B.1

RAPID: Supporting risk-informed strategic policy and resource allocation decisions at DHS

Cheesebrough T, Stenzler J, Langbehn W, Hanson M

US DHS Office of Risk Management and Analysis

1:50 pm

T3-B.2

RMAP: Agent-based risk analysis for the aviation system

Cox A, McKean M, Robinson R

Transportation Security Administration

2:10 pm

T3-B.3

Probabilistic risk analysis and bioterrorism risk

Ezell BE, Bennett SP, von Winterfeldt D,

Sokolowski J, Collins AJ

Old Dominion University

2:30 pm

T3-B.4

A place for probability: examining assumptions in optimizing methods for terrorism risk analysis

Bennett SP, Ezell BC

US Department of Homeland Security Office of Risk Management and Analysis

1:30-3:00 PM

Salon A

T3-C Poster Platform: Toxicity in an Evolving World

Chair: Margaret MacDonald

Sponsored by DRSG

T3-C.1 The update project of the EPA's Integrated Risk Information System (IRIS) Program

Shoaf CR, Foureman GL

US Environmental Protection Agency

T3-C.2 US EPA framework for determining mutagenic mode of action for carcinogens

Schoeny R, Owen R, McCarroll N, Kliger-

man A, Keshava N, Keshava C, Dearfield

K, Cimino M, Putzrath RM, McMahon T

US Environmental Protection Agency, US

Department of Agriculture

T3-C.3 Uncertainty modeling in dose response: bench tests to support derivation of toxicity values

Cooke RM, MacDonell MM

Resources for the Future, Argonne National

Laboratory

T3-C.4 Conundrums with uncertainty factors

Cooke RM

Resources for the Future

T3-C.5 Carcinogenic potency assessment for 2-aminonaphthalene

Naufal Z, Collie S*, Smith J, Wilson C

R.J. Reynolds Tobacco Company, Synergy

Toxicology

T3-C.6 Use of life-stage adjustment in oral risk assessment for 4,4-methylene dianiline

English JC, Ball GL, McLellan CJ

NSF International, Ann Arbor, MI

T3-C.7 Independent expert peer workshop for the toxicological assessment and development of RfDs for acetanilide degradates: a workshop using the Alliance for Risk Assessment (ARA) collaborative model

Parke A, Gadagbui B, Dourson M, Christopher J, Maier A, Willis A

Toxicology Excellence for Risk Assessment (TERA), California Environmental Protection Agency

T3-C.8 Human health risk from exposure to perfluorooctanoic acid (PFOA)

Bastaki M, Calkins M, Lawrence C

State College

T3-C.9 Development of human health toxicological criteria for five organic acids

Neuber K, Durda J, Bradley A

Integral Consulting Inc.

T3-C.10 Dose-response assessment for influenza A virus based on the datasets for its vaccine strains

Watanabe T, Bartrand TA, Omura T,

Haas CN

The University of Tokyo

1:30-3:00 PM

Salon E

T3-D Symposium: State of Science for Quantifying Human Exposure to Fire Particulate Matter

Chair: Chris Frey

1:30 pm

T3-D.1

Evaluation of residential indoor PM2.5 concentrations associated with indoor emissions and penetration of ambient air

Cao Y, Deshpande B, Frey HC*

North Carolina State University

1:50 pm

T3-D.2

Modeling of in-vehicle PM2.5 exposure using the stochastic human exposure and dose simulation model

Liu X, Frey H.C., Cao Y

North Carolina State University

2:10 pm

T3-D.3

Evaluation of the modeling of exposure to Environmental Tobacco Smoke (ETS) in the SHEDS-PM Model

Cao Y, Frey HC

North Carolina State University

2:30 pm

T3-D.4

Source apportionment of indoor residential fine particulate matter using land use regression and constrained factor analysis

Clougherty JE, Houseman EA, Levy JJ*

Harvard School of Public Health, The

Warren Alpert Medical School of Brown

University

<p>1:30-3:00 PM <i>Federal Hill</i></p> <p>T3-E Symposium: Import Safety: Risk Assessment and Policy <i>Chair: Cary Coglianese</i> <i>Sponsored by RPLSG</i></p> <p>1:30 pm T3-E.1 Consumer protection in an era of globalization <i>Coglianese C, Zaring C</i> <i>University of Pennsylvania</i></p> <p>1:50 pm T3-E.2 Risk-based approaches to import safety <i>Zach LS, Bier VM</i> <i>University of Wisconsin - Madison</i></p> <p>2:10 pm T3-E.3 Profiling violators <i>Berk RA</i> <i>University of Pennsylvania</i></p> <p>2:30 pm T3-E.4 Bonded import safety warranties <i>Baker T</i> <i>University of Pennsylvania Law School</i></p>	<p>1:30-3:00 PM <i>Homeland</i></p> <p>T3-F What's New in Risk Assessment for Listeria Monocytogenes? <i>Chair: Regis Pouillot</i></p> <p>1:30 pm T3-F.1 A joint FDA/Health Canada risk assessment: Listeria monocytogenes in soft-ripened cheese <i>Gendel SM, Pouillot R, Murray C</i> <i>US Food and Drug Administration</i></p> <p>1:50 pm T3-F.2 A comparative risk assessment for Listeria monocytogenes in ready-to-eat meat and poultry products <i>Akingbade DA, Gallagher D, LaBarre D, Kause J</i> <i>Food Safety and Inspection Service, Virginia Polytechnic Institute and State University</i></p> <p>2:10 pm T3-F.3 Modeling Listeria monocytogenes cross-contamination dynamics within a quantitative risk assessment <i>Ivanek R, Grohn YT, Wiedmann M, Wells MT</i> <i>Texas A&M University, Cornell University</i></p> <p>2:30 pm T3-F.4 Validating models for the growth/no-growth boundary for Listeria monocytogenes in mis-formulated ready-to-eat foods <i>Schaffner DW, Schaffner KM, Liu B, Bruins HB</i> <i>Rutgers University</i></p>	<p>1:30-3:00 PM <i>Fells Point</i></p> <p>T3-G Modeling Risk of Interdependent Environments <i>Chair: William McGill</i> <i>Sponsored by EISG</i></p> <p>1:30 pm T3-G.1 Dependency issues of critical infrastructures during a recovery period after a large-scale disaster - agent-based modeling approach for utility services <i>Kajitani Y, Kroeger W</i> <i>CRIEPI</i></p> <p>1:50 pm T3-G.2 Probabilistic Inoperability Input-Output Model (P-IIM) <i>Jung J, Santos JR, Haimes YY</i> <i>University of Virginia</i></p> <p>2:10 pm T3-G.3 Introduction to functional dependency network analysis <i>Garvey Pr, Pinto Ca</i> <i>Old Dominion University</i></p> <p>2:30 pm T3-G.4 Algorithm for mapping event trees and event sequence diagrams into Bayesian belief networks <i>Wang C, Mosleh A</i> <i>University of Maryland College Park</i></p>	<p>1:30-3:00 PM <i>Kent</i></p> <p>T3-H Symposium: Geospatial Risk Analysis <i>Chair: Dolores Severtson</i> <i>Sponsored by RCSG</i></p> <p>1:30 pm T3-H.1 Same risk, different visual design: public interpretations of hurricane track maps <i>Easco GM</i> <i>University of Oklahoma</i></p> <p>1:50 pm T3-H.2 Using GIS for environmental health decision-making in Wisconsin: challenges and pitfalls in display and interpretation <i>Malecki KM, Bekkedal MY</i> <i>Wisconsin Bureau of Environmental and Occupational Health, University of Wisconsin, Madison</i></p> <p>2:10 pm T3-H.3 Assessing how proximity to hazards on a map influences risk beliefs and behavioral intentions and testing a measure of perceived hazard proximity <i>Severtson DJ, Burt JE</i> <i>University of Wisconsin-Madison</i></p> <p>2:30 pm T3-H.4 Assessing the association between public health and environmental factors <i>Young LJ, Gotway CA, Xu X, Kearney G*, Hyman M</i> <i>University of Florida, Florida Department of Health</i></p>	<p>1:30-3:00 PM <i>Pride of Baltimore</i></p> <p>T3-I Applications of Risk- and Benefit-Cost Analysis <i>Chair: Bob Scharff</i> <i>Sponsored by EBASG</i></p> <p>1:30 pm T3-I.1 A model for integrating quantitative risk analysis of vendor's environmental performance into supplier selection process <i>Yaraghi N, Hajbagheri M</i> <i>Royal Institute of Technology (KTH)</i></p> <p>1:50 pm T3-I.2 Disentangling visibility and health effects in the valuation of improved air quality by use of stated choice analysis <i>De La Maza C, Rizzi L, Cifuentes L</i> <i>Pontificia Universidad Católica de Chile</i></p> <p>2:10 pm T3-I.3 Cost and benefits of the new decontamination plan for Santiago de Chile <i>Gomez J, De La Maza C, Toba E, Cifuentes L</i> <i>Pontificia Universidad Católica de Chile</i></p> <p>2:30 pm T3-I.4 Prevention through surveillance: the efficacy of the pulsenet laboratory system as a means of preventing foodborne illness <i>Scharff RL</i> <i>Ohio State University</i></p>
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3:30-5:00 PM

Baltimore A

T4-A Symposium: Risk Communication and Indigenous Communities

Chair: Cindy Jardine

3:30 pm

T4-A.1

Communicating health risks in aboriginal communities: the role of trust in preferred information sources
Boyd AD, Paveglia TB, Jardine CJ, Furgal CM

University of Calgary, Washington State University, University of Alberta, Science Gzowski College Trent University

3:50 pm

T4-A.2

Aquatic risk communication in Canada's north

Giles AR, Castleden H, Baker AC

University of Ottawa, Dalhousie University, University of Calgary

4:10 pm

T4-A.3

Using PhotoVoice to understand risk concerns in Northern Aboriginal communities

Jardine CG, Furgal CM

University of Alberta

4:30 pm

T4-A.4

Climate change in rural India: risk perception and adaptation of farmers

Moghariya D, Nordenstam BJ

SUNY-ESF

3:30-5:00 PM

Baltimore B

T4-B Symposium: Advancing Dose Response Assessment

Co-Chairs: Michael Dourson, Jeff Gift

Sponsored by DRS&G

3:30 pm

T4-B.1

A foundation for including quantitative data in health risk assessment

Lipscomb JC

Toxicology Excellence for Risk Assessment

3:50 pm

T4-B.2

Mixtures, thresholds and background response: how do they all relate?

Hertzberg R

Biomathematics Consulting

4:10 pm

T4-B.3

Current progress on the implementation of ideas from the NAS 2008 report

Dourson ML

Toxicology Excellence for Risk Assessment (TERA)

3:30-5:00 PM

Salon A

T4-C Poster Platform: Applications of Risk Analysis to Terrorism Security

Chair: Henry Willis

Sponsored by DAR&G

T4-C.1 What can be learned about the public's perception of terrorism risk?

Rosoff H, John R

University of Southern California

T4-C.2 Using risk analysis to support law enforcement intelligence targeting

Lundberg R, Willis HH

RAND Corporation

T4-C.3 Response reliability as a measure of preparedness for disaster response

Jackson JB, Goulka J, Sullivan K, Willis HH

RAND Corporation

T4-C.4 A game theoretic approach for randomization in security: a report from the trenches

Tambe M, Kiekintveld M, Taylor M, Pita J, Ordonez F

University of Southern California

T4-C.5 CTRA medical mitigation model: assessing the benefits of the public health response

Good K, Montello B, Von Niederhausern M, Hawkins B

Battelle Memorial Institute

T4-C.6 The chemical terrorism risk assessment: a biannual assessment of risk to the nation

Roszell LE, Cox J, Whitmire M

Department of Homeland Security

T4-C.7 The chemical infrastructure risk assessment: assessment of risk to the chemical supply chain

Roszell LE, Gooding R, Kolakowski J

Department of Homeland Security

T4-C.8 CTRA foodborne contamination consequence model: assessing health consequences of a foodborne chemical terrorism attack

Min S, Luedeker J, Knebel N, Hawkins B

Battelle Memorial Institute

3:30-5:00 PM

Salon E

T4-D Poster Platform: Evolution of Inhalation Exposure Methods

Chair: Haluk Ozkaynak

T4-D.1 Exposure assessment of air pollution using GIS

Lin MH, Ho WC, Wu TN, Lin RS

China Medical University

T4-D.2 PM_{2.5}-related health risks from aircraft emissions: a case study of the influence of chemistry-transport model scale and resolution at three US airports

*Arunachalam S, Baek BH, Wang B, Davis N, Levy JJ**

University of North Carolina-Chapel Hill, Harvard School of Public Health

T4-D.3 Verification and sensitivity analysis of the Johnson-Ettinger models

Liu C, Juilas C, Nai-chia L

CDM

T4-D.4 Inhalation risk assessment for dirt bike rider

Juilas C, Marcum T, Luke N

Edison, New Jersey, Denver, Colorado

T4-D.5 What's in landfill gas; why does it smell; is it hazardous to breathe?

Zemba SG, Ames MR, Green LC

Cambridge Environmental Inc.

T4-D.6 Human exposure models for PM_{2.5}: current limitations and opportunities for improvement

Ozkaynak H

US Environmental Protection Agency

T4-D.7 Cost-benefit analysis on countermeasures for health risk

Fujinaga A, Hihara H

Osaka Prefectural College of Technology

3:30-5:00 PM

Federal Hill

T4-E Symposium: The WTO as a Global Risk Regulator?

Chair: Alberto Alemanno

Sponsored by RPLSG

3:30 pm

T4-E.1

World-wide harmonization of risk law at the WTO?

Arcuri A

School of Law, Erasmus University Rotterdam

3:50 pm

T4-E.2

Risk assessment under WTO law: workable requirement or probatio diabolica?

Alemanno A

HEC Paris

4:10 pm

T4-E.3

Standard of review in WTO dispute resolution under the SPS Agreement

Epps TD

University of Otago

4:30 pm

T4-E.5

Agreement to Technical Barriers to Trade (TBT) and risk analysis in petroleum, petrochemical and natural gas industries

Petrovskiy MA

TIEC Inc.

3:30-5:10 PM

Homeland

T4-F Soup, Salad and Beyond: Methods to Management of Food Safety

Chair: Mark Powell

Sponsored by BSSG

3:30 pm

T4-F.1

Evaluating food safety risks in a virtual laboratory: a novel agent-based modeling approach to food safety risk assessment

Mokhtari A, Beaulieu S, Jaykus L, Dennis S, Oryang D

RTI International

3:50 pm

T4-F.2

Risk-based design of thermal processes for preservation of low-acid foods

Amezquita A, Kan-King-Yu D, Membre JM, Elberse A

Unilever, Safety and Environmental Assurance Centre, Unilever Food and Health Research Institute

4:10 pm

T4-F.3

A swift Quantitative Microbiological Risk Assessment (sQMRA) - tool

Evers EG, Chardon JE

National Institute for Public Health and the Environment

4:30 pm

T4-F.4

Considering the duration of *Listeria monocytogenes* growth challenge studies

Powell MR

US Department of Agriculture

4:50 pm

T4-F.5

Integrating sound science in the management of food safety risks: an evaluation of risk ranking and risk prioritization models and methodologies

Jaykus LA, Lowry MI, Beaulieu SM, Anderson ME, Dennis SB, Oryang DO*

North Carolina State University, RTI International, US Food and Drug Administration

3:30-5:10 PM

Fells Point

T4-G I'll Take Potpourri for \$200, Alex

Chair: Pamela Williams

3:30 pm

T4-G.1

Artificial intelligence and risk: what should we believe?

Baum SB

Pennsylvania State University

3:50 pm

T4-G.2

Analysis of climate variability changes using quantile regression method

Timofeev A, Sterin A, Linkov I

Russian Research Institute for Hydrometeorological

4:10 pm

T4-G.3

Heat stress and hospital admissions: a case study on Phoenix, AZ

Harlan SL, Chowell G, Ruddell DM, Morales E

Arizona State University

4:30 pm

T4-G.4

An integrated framework for risk analysis : application to market risks

Ben Arfa MB, Aloui SA, Genest JG

Arrow Financial Consulting

4:50 pm

T4-G.5

Taming uncertainty: have organisations fully embraced the evolution in risk analysis, or are risk analysis techniques simply not evolving quickly enough?

Hall IS

Lloyds Banking Group

3:30-5:10 PM

Kent

T4-H Ecological Risk and Stressors

Co-Chairs: Kurt Frantzen, Trina von

Stackelberg

3:30 pm

T4-H.1

A Bayesian network based risk assessment for whirling disease on populations of Colorado River cutthroat trout in watersheds of the southwestern United States

Kolb Ayre K, Caldwell CA, Stinson J, Landis WG

Western Washington University, US Geological Survey

3:50 pm

T4-H.2

Adaptation of WOE guidance to British Columbia's regulatory regime

Lawrence G, Power B, Gaberty W, Widmeyer J, Odense R, Bright D, Hill R

Science Advisory Board WOE Workgroup

4:10 pm

T4-H.3

Risk factors for invasive pest introductions in commodity imports

Lichtenberg E, Olson LJ, Ordonez R

University of Maryland College Park

4:30 pm

T4-H.4

Modeling the effects of thiamine deficiency on lake trout populations in Lake Michigan

Schmitt BR, Murphy CA, Rose JB

Michigan State University

4:50 pm

T4-H.5

Can vertebrate population studies used to assess ecological risk?

Ryti RT

Neptune and Company, Inc.

3:30-5:10 PM

Pride of Baltimore

T4-I Managing Nanotechnology

Chair: Linda Abbott

3:30 pm

T4-I.1

Applying the late lessons from early warnings to nanotechnology

Hansen SF, Baum A

Technical University of Denmark

3:50 pm

T4-I.2

Nano-enabled biomaterials and bio-products: the key to a sustainable future?

Sheremeta L, Shatkin JA

National Institute for Nanotechnology

4:10 pm

T4-I.3

Cooperation on global risk assessment approaches for manufactured nanomaterials

Gulledge B

American Chemistry Council

4:30 pm

T4-I.4

An anticipatory approach to carbon nanotubes

Philbrick M

University of California, Berkeley

4:50 pm

T4-I.5

Nanotech governance and the life-cycle of regulations: when to engage stakeholders and the public?

Saner MA

Carleton University, Ottawa, Canada

<p>8:30-9:30 AM <i>Baltimore A</i></p> <p>W1-A Risk-Informed Organizational and Management Decision-Making <i>Chair: Debra Decker</i> <i>Sponsored by DARSG</i></p>	<p>8:30-10:00 AM <i>Baltimore B</i></p> <p>W1-B Risk Management Tools for Imported Food <i>Chair: Kara Morgan</i> <i>Sponsored by EBASG</i></p>	<p>8:30-10:00 AM <i>Salon A</i></p> <p>W1-C Weights of Evidence Framework for Human Relevance <i>Chair: Stephen Olin</i> <i>Sponsored by DRSG</i></p>	<p>8:30-10:00 AM <i>Salon E</i></p> <p>W1-D Poster Platform: Air and Food Pathway Exposures <i>Chair: Shahid Parvez</i></p>	<p>W1-D.6 Chemical risks from fish consumption by Kuwaiti nationals <i>Vorbees D, Husain A, Sawaya W, Alzenki S, Akashab M, Walker K, Evans J</i> <i>Kuwait Public Health Project</i></p>
<p>8:30 am W1-A.1 Methodology for the assessment of the impact of informal processes on an organization's risk <i>Ross LM, Mostleh A</i> <i>Center for Risk and Reliability, University of Maryland</i></p>	<p>8:30 am W1-B.1 Development of an Expert Model of Imports Risk Management System <i>Butte G, Morgan K, Eggers S, Thorne S</i> <i>Decision Partners, LLC.</i></p>	<p>8:30 am W1-C.1 Increasing transparency and accountability in risk assessment: developments in MOA-based dose-response analysis and testing <i>Meek ME, Dellarco, V*</i> <i>University of Ottawa, Canada</i></p>	<p>W1-D.1 An evaluation of the use of controlled human exposure studies in the development of the Integrated Science Assessment for particulate matter <i>Johns DO</i> <i>US Environmental Protection Agency</i></p>	<p>W1-D.7 Evaluation of exposure to PCDD/Fs Toxic Equivalence (TEQD/F) from consumption of fish harvested from Tittabawassee and Saginaw Rivers based on site-specific fishing data and recent residue measurement <i>Zabik JM, Kirman CR, Hoelm RR, Yost L, Sorensen MT, Aylward LL, Hubner RP, Landenberger BD, Budinsky RA, Price PS</i> <i>Dom, Sapphire, Exponent, ENTRIX, ENVIRON, Summit Toxicology</i></p>
<p>8:50 am W1-A.2 Is there a possible synergy between sustainability and safety? A sustainable development plan for a public institute in the field of industrial environment and risks <i>Myriam Merad MME, Frédéric Marcel FMa</i> <i>INERIS</i></p>	<p>8:50 pm W1-B.2 Health outcomes model for imported foods <i>Jessup A, Morgan K</i> <i>US Department of Health and Human Services, US Food and Drug Administration</i></p>	<p>8:50 am W1-C.2 Promoting understanding, use and best practice for PBPK modeling in a mode of action context <i>Lipscomb JC</i> <i>US Environmental Protection Agency, National Center for Environmental Assessment</i></p>	<p>W1-D.2 Characterizing estimated upper bound multimedia ingestion risks for point source facilities in NEI for select hazardous air pollutants <i>Shapiro A, Burch D, Henning C, Turley AT, Holder C, Smith R</i> <i>ICF International</i></p>	<p>W1-D.8 Assessing the risk from exposing to histamine in Thai fish sauce <i>Wanasen S, Ross T, Olley J, Sukumpanich K, Somboonyarit W, Kongpun O, Valyasvi R</i> <i>University of Tasmania</i></p>
<p>9:10 am W1-A.3 From integrated risk management to enterprise risk-based decision support: a phased approach <i>Krishen L</i> <i>Futron Corporation</i></p>	<p>9:10 am W1-B.3 Predict: evaluation of a decision support tool for entry review <i>Morgan K, Owens C</i> <i>US Food and Drug Administration, ORA Risk Management Staff</i></p>	<p>9:10 am W1-C.3 Implications of MOA/human relevance/critical key events analysis for dose-response analysis for mutagenic carcinogens <i>Moore MM</i> <i>NCTR/US Food and Drug Administration</i></p>	<p>W1-D.3 Estimation of exposures to particulate matter in urban areas of sub-saharan Africa <i>Rosenstein AB, Biton L</i> <i>ICF International</i></p>	<p>W1-D.9 Analysis of pubertal delay in rats caused by individual drinking water disinfection by-products (DBPs) and DBP mixtures <i>Parvez S, Rice GE, Teuschler LK, Simmons JE, Speth TF, Richardson SD, Miltner RJ, Hunter ES, Pressman JG, Strader LF, Klinefelter GR, Goldman JM, McDonald T, Narotsky, MG</i> <i>US Environmental Protection Agency Cincinnati, Research Triangle Park, and Athens, GA</i></p>
	<p>9:30 am W1-B.4 FSIS perspective on import food safety <i>Dreyling, E</i> <i>US Food Safety and Inspection Service</i></p>	<p>9:30 am W1-C.4 The MOA key events dose response framework: chemicals and beyond <i>Boobis AR</i> <i>ILSI RF Threshold Working Group, Imperial College London</i></p>	<p>W1-D.4 Worker inhalation exposure to benzene from solvents during parts washing <i>Sheehan P, Bogen K, Brorby G, Goswami E</i> <i>Exponent</i></p>	<p>W1-D.5 US EPA's exposure assessments for residential insecticide fogging systems: update on ongoing revisions to standard operating procedures for assessing residential exposure <i>Figueroa ZF, Lloyd MG, LaMay AY, Villanueva PS</i> <i>US Environmental Protection Agency</i></p>

<p>8:30-10:00 AM <i>Federal Hill</i></p>	<p>8:30-10:00 AM <i>Homeland</i></p>	<p>8:30-10:00 AM <i>Fells Point</i></p>	<p>8:30-10:00 AM <i>Kent</i></p>	<p>8:30-10:00 AM <i>Pride of Baltimore</i></p>
<p>W1-E Symposium: Occupational Dose- Response for Non-Cancer <i>Chair: Andrew Maier</i> <i>Sponsored by DRSG</i></p>	<p>W1-F Information Behaviors <i>Chair: Andrew Binder</i> <i>Sponsored by RCSG</i></p>	<p>W1-G Symposium: Portfolio Approaches and Diversifi- cation in Risk Assessment and Management <i>Co-Chairs: James Lambert, Igor Linkov</i> <i>Sponsored by EISG</i></p>	<p>W1-H Symposium: Applying Tools of Risk Analysis to National Environmental Health Strategy for U.A.E. <i>Chair: Jacqueline MacDonald Gibson</i></p>	<p>W1-I Nanonews 1: Risk Perception and Nanotechnology <i>Chair: Sharon Friedman</i></p>
<p>8:30 am W1-E.1 The need for quantitative estimates of risk in developing occupational health standards <i>Schaeffer VH</i> <i>US Occupational Safety and Health Ad- ministration</i></p>	<p>8:30 am W1-F.1 The influence of numeracy on eye movements while interpreting graphi- cal risk communication formats <i>Keller C, Siegrist M</i> <i>ETH Zurich, Institute for Environmental Decisions (IED)</i></p>	<p>8:30 am W1-G.1 Risk management and portfolio di- versification: needs and possible solu- tions <i>Canis LJ, Keisler JM, Lambert JH,</i> <i>Linkov I</i> <i>Corps of Engineers</i></p>	<p>8:30 am W1-H.1 Burden of disease attributable to ex- posure to occupational hazards in the United Arab Emirates <i>Folley T</i> <i>University of North Carolina</i></p>	<p>8:30 am W1-I.1 Is no nano risk news good news? <i>Friedman SM, Egolf BP</i> <i>Lehigh University</i></p>
<p>8:50 am W1-E.2 Applications of benchmark dose ex- trapolation, ordinal regression, and probabilistic uncertainty factor meth- ods for characterizing occupational risks <i>Maier A, Hertzberg R, Dourson M,</i> <i>Haber L</i> <i>Toxicology Excellence for Risk Assessment,</i> <i>Emory University</i></p>	<p>8:50 am W1-F.2 The action suited to the word? Use of the framework of risk information seeking to understand risk-related be- haviors <i>ter Huurne EFJ, Kievik M, Gutteling JM</i> <i>University of Twente</i></p>	<p>8:50 am W1-G.2 Diversification of project portfolios for multimodal transportation plan- ning <i>Joshi NN, Lambert JH</i> <i>Morehead State University</i></p>	<p>8:50 am W1-H.2 An integrated environmental burden of disease model in the United Arab Emirates <i>Li Y</i> <i>University of North Carolina</i></p>	<p>8:50 am W1-I.2 Evaluating nanotechnology regula- tion attitudes using proportional odds regression model <i>Greenhalgh TJ, Priest SH</i> <i>University of Nevada, Las Vegas</i></p>
<p>9:10 am W1-E.3 Dose-response modeling using bio- marker data - TiO₂ as a case study <i>Dankovic DA, Allen B, Maier A, Willis</i> <i>A, Haber LT</i> <i>NIOSH, Bruce Allen Consulting, Inc.,</i> <i>TERA</i></p>	<p>9:10 am W1-F.3 Dimensions of interpersonal discus- sion and their impact on perceptions of risks and benefits <i>Binder AR, Scheufele DA, Brossard D,</i> <i>Gunther AC</i> <i>University of Wisconsin-Madison</i></p>	<p>9:10 am W1-G.3 Multiobjective project prioritization with recalibration of a value function addressing emergent conditions <i>Karvetski CW, Lambert JH, Linkov I</i> <i>University of Virginia</i></p>	<p>9:10 am W1-H.3 Applying tools of risk analysis to the development of a national environ- mental strategy for the United Arab Emirates <i>MacDonald Gibson J</i> <i>University of North Carolina</i></p>	<p>9:10 am W1-I.3 Tracking online behavior after expo- sure to news of a local nanotechnol- ogy risk: A Risk Information Seeking and Processing (RISP) model ap- proach <i>Hillback ED, Dudo AD, Tsai JY, Dun- woody S, Brossard D, Scheufele D</i> <i>University of Wisconsin-Madison</i></p>
<p>9:30 am W1-E.4 Applications of Physiologically- Based Pharmacokinetic (PBPK) modeling to refining dose-response evaluations in occupational health risk assessment <i>Sweeney LM</i> <i>The Sapphire Group</i></p>	<p>9:30 am W1-F.4 Who said what? The use of sources in the media for the risk communica- tion of West Nile virus and malathion use in Manitoba, Canada <i>Watts DE, Driedger SM</i> <i>University of Manitoba</i></p>	<p>9:30 am W1-G.4 Theory of portfolio approaches in risk management <i>Keisler J, Linkov I, Loney D</i> <i>University of Massachusetts Boston</i></p>	<p>9:30 am W1-H.4 Concerns about environmental health risks in the United Arab Emirates <i>Willis HH</i> <i>RAND Corporation</i></p>	<p>9:30 am W1-I.4 Envisioning emerging nanotechnolo- gies: results of a three-year panel study <i>Priest SH, Greenhalgh T</i> <i>University of Nevada, Las Vegas</i></p>

10:30 AM-Noon
Baltimore A
**W2-A Symposium:
Perceived Risk: Causes,
Consequences and
Communication**
Chair: William Burns
Sponsored by RCSG

10:30 am **W2-A.1**
Comparing the economic consequences of three disasters: accounting for fear and perceived risk
Burns WJ
Decision Research

10:50 am **W2-A.2**
How does government risk communication and social norm affect fear, perceptions of risk, and behavioral intentions following terrorist attacks?
John RS, Rosoff H
University of Southern California

11:10 am **W2-A.3**
Risk communication as a mitigating factor in crisis situations: audience perception and preference
Sellnow TL, Seeger MW, Vidoloff KG
University of Kentucky, Wayne State University

11:30 am **W2-A.4**
The impact of profession on risk perceptions and attitudes towards potential homeland security programs
*Smith VK, Mansfield CA**
Arizona State University, RTI International

10:30 AM-Noon
Baltimore B
**W2-B Evolving Tools for
Uncertainty and Risk**
Chair: Kari Sentz
Sponsored by DARSG

10:30 am **W2-B.1**
Evolving management of highly uncertain risks: unused pharmaceuticals, climate change and nuclear waste
Hassenzahl DM, Goble R, Ruboy IS
University of Nevada, Las Vegas, Clark University

10:50 am **W2-B.2**
Precise and imprecise probabilistic models under varying information
Sentz K
Los Alamos National Laboratory

11:10 am **W2-B.3**
Decision making with interval data
Huber WA
Quantitative Decisions

11:30 am **W2-B.4**
Prospect theory under uncertainty: modeling ambiguity and/or risk averse behavior of individual decision making
Tamura H
Kansai University

10:30 AM-Noon
Salon A
**W2-C Poster Platform/
Discussion: Hormesis:
Advancements and
Opportunities**
Chair: Steve Lewis
Sponsored by DRSG

W2-C.1 Hormesis: state of the science
Calabrese EJ
University of Massachusetts

W2-C.2 Hormesis: barriers for regulatory risk assessment
Lewis SC, Calabrese EJ
Integrative Policy & Science, Inc.

W2-C.3 Hormesis: potential implications for the pharmaceutical industry
Maynard KI
Sanofi-Aventis, US, Inc

W2-C.4 Survey results for the hormesis knowledge and opinion survey administered to risk assessment and toxicology professionals
Jones AC, Anderton DL, Stanek EJ, Calabrese EJ
University of Massachusetts

W2-C.5 Panel Discussion
Lewis SC
Integrative Policy & Science, Inc.

10:30 AM-Noon
Salon E
**W2-D Poster Platform:
Risk-Informed Decision
Making in Defense and
Homeland Security**
Co-Chairs: James Lambert, Igor Linkov
Sponsored by EISG

W2-D.1 Guidelines for data streams and proxy data for homeland security risk analysis
Baker JC
Homeland Security Studies & Analysis Institute

W2-D.2 Using MARS to provide risk management decision guidance to DHS
Lathrop JF
Lawrence Livermore National Laboratory

W2-D.3 Public role and engagement in counterterrorism efforts: implications of Israeli practices for the United States
McGee S, Bott C, Gupta V, Jones K, Karr A
Analytic Services Inc/Homeland Security Institute

W2-D.4 Mission-based energy security planning for Army and DoD installations
Holcomb FH, Abdallah T, Case MP
US Army Engineer Research and Development Center

W2-D.5 Investments in energy security: a multiple criteria decision analysis with emergent conditions of the energy environment
Karvetski CW, Lambert JH, Linkov I
University of Virginia, US Army Corps of Engineers

W2-D.6 Multi-criteria decision analysis of supply options for energy security of small settlements
Trawlew A, Tkachuk A, Linkov I
Institute for Neutron Physics and Reactor Technology, Germany

W2-D.7 A methodology for modeling regional terrorism risk
Chatterjee S, Abkowitz MD
Vanderbilt University

W2-D.8 Why targeting flights for passenger inspections using passenger volume is best
Caton BP, Robertson S
US Department of Agriculture

10:30 AM-Noon
Federal Hill
**W2-E Assessing Maritime
and Transportation Safety
and Security Risk**
Chair: Wayne Becker
Sponsored by DARSG

10:30 am **W2-E.1**
Risk analysis of the maritime traffic in Delaware River and Bay area
Aliok T, Almaz A
Rutgers, The State University of New Jersey

10:50 am **W2-E.2**
Multi-criteria decision analysis to assess options for Grays Harbor long-term management strategy
Kim JB, Gilmer M, Michalsen D, Martin S, Suedel B, Banks C
US Army Corps of Engineers

11:10 am **W2-E.3**
A risk assessment tool for transportations of hazardous substances
Reniers GLL, De Jongh K, Lauwers D, Van Leest M
Antwerp University, Ghent University

11:30 am **W2-E.4**
Balancing risk, cost and freedom in a community of interest
Becker WW, Dillon-Merrill RL, Chinnis JO, McKnight AJ, Bresnick TA, Parnell GS
Marine Safety Foundation, Salutory Technology, Inc.

10:30-11:30 AM
Homeland
W2-F Evolution of Risk Communication
Chair: TBD
Sponsored by RCSG

10:30 am **W2-F.1**
On subjective probability
O'Doherty KC
University of British Columbia

10:50 am **W2-F.2**
Intuitive weighting of evidence from human, animal and mechanistic studies
Schuetz H, Wiedemann PM, Boerner F*
Research Center Juelich

11:10 am **W2-F.3**
Evidence maps as a risk communication tool - an empirical evaluation
Wiedemann P, Schütz H, Börner F
Forschungszentrum Jülich

10:30 AM-Noon
Fells Point
W2-G Analysis of Management of Risk in Transportation Systems
Chair: Ariel Pinto
Sponsored by EISG

10:30 am **W2-G.1**
Development of a prioritization methodology for maintaining Virginia's bridge infrastructure systems
*Mackey C, Santos JR**
University of Virginia

10:50 am **W2-G.2**
Environmental risk analysis of railroad transportation of hazardous materials
Saat MR, Barkan CPL, Werth CJ, Schaeffer DJ, Yoon H, Hridaya N
University of Illinois

11:10 am **W2-G.3**
Association between geographical variables and the incidence on child pedestrian casualties in Chile using a spatial analysis
Blázquez C, Bronfman NC
Universidad Andres Bello

11:30 am **W2-G.4**
Risk analysis and failure scenario characterization using physics based tools: as applied to liquid propellant rocket engines
*Ramamurthy B, Horowitz E, Fragola JR**
Valador Inc

10:30 AM-Noon
Kent
W2-H Symposium: Characterizing and Communicating Uncertainties
Part 1: Principles and Experiences
Chair: Alexandre Zenie

10:30 am **W2-H.1**
Principles of uncertainty analysis in exposure assessment: characterizing and communicating uncertainty
Frey HC
North Carolina State University

10:50 am **W2-H.2**
EU experiences of characterizing and communicating exposure assessment uncertainties
Heinemeyer G, Zenié LA
Federal Institute for Risk Assessment (BfR)

11:10 am **W2-H.3**
US EPA experiences in characterizing and communicating exposure assessment uncertainties using probabilistic exposure models
Ozkanaynak H
US Environmental Protection Agency

11:30 am **Discussion**

10:30 AM-Noon
Pride of Baltimore
W2-I Nanonews 2: Risk Perception and Nanotechnology
Chair: Jose Palma-Oliveira

10:30 am **W2-I.1**
Knowing much while knowing nothing: a case study of risk perception of a new technology (nano) and its implications for risk communication
*Carvalho J, Soeiro V, Carvalho R, Luís S, Palma-Oliveira**
University of Lisbon

10:50 am **W2-I.2**
"An acceptable risk is an accepted risk?" The construction of carbon nanotubes as a hazard
Amorim TA
Santa Catarina Federal University

11:10 am **W2-I.3**
Indian scientists' views of risks associated with nanoscience and nanotechnology research
Patra D, Ejnavarçala H, Macomas KA
Cornell University

11:30 am **W2-I.4**
Expert perceptions of the toxicity of nanoparticles
Berube D
North Carolina State University

10:30-11:30 AM
Gibson
W2-J Decision Analysis Grab Bag
Chair: Ali Mosleh

10:30 am **W2-J.1**
Risk tolerance as a dynamic function of time horizon with risk capacity, attitude, propensity and knowledge
Alexander-Houle DJ, Houle GR
University of Phoenix, Hewlett Packard

10:50 am **W2-J.2**
Development of an interdependent causal model for estimating human error probability from performance shaping factors.
Groth KM, Mosleh A
University of Maryland

11:10 am **W2-J.3**
Simulation of dust explosion in a high dispersion system and semi-quantitative assessment of risk using the LOPA methodology
Batista J, Quintero F, Muñoz F
Universidad de los Andes

1:30-3:00 PM
Baltimore A
W3-A Symposium: Advancing Mechanistic Knowledge for Microbial Risks

Chair: Peg Coleman

1:30 pm W3-A.1
Early interactions of *B. anthracis* and *E. tularensis* in mice and humans.

Cross AS
Center for Vaccine Development, University of Maryland School of Medicine

1:50 pm W3-A.2
Variable virulence of the bordetellae

Harvill EH, Zhang X
Pennsylvania State University

2:10 pm W3-A.3
Community-associated MRSA virulence in mice, non-human primate, and humans

*DeLeo, FR, Kohlmeier J**
NLAID/NIH

2:30 pm W3-A.4
Physiological modeling perspective on state-of-the-science for respiratory infections

Lumpkin MH, Diamond G, Coleman M
SRC

1:30-3:00 PM
Baltimore B
W3-B Risk Perception

Chair: Branden Johnson
Sponsored by RCSG

1:30 pm W3-B.1
Knowledge and voluntary precautionary recommendations as influencing factors in risk perception of mobile communication

Cousin M-E, Siegrist M
ETH Zurich, Institute for Environmental Decisions (IED), Consumer Behavior

1:50 pm W3-B.2
How local is risk? Exploring macro-level context and individual-level factors in risk communication across five potential sites for a biological research facility

Binder AR, Scheufele DA, Brassard D, Gunther AC
University of Wisconsin-Madison

2:10 pm W3-B.3
Gender, ethnicity, and risk perception effects of local hazards and stressed neighborhoods

Johnson BB
New Jersey Department of Environmental Protection

2:30 pm W3-B.4
Recycled water and public perception of risk

Nordenstam BJ, Moran S
SUNY-ESF

1:30-3:00 PM
Salon A
W3-C Poster Platform: Recalls and Food Safety

Chair: William Hallman
Sponsored by RCSG

W3-C.1 Predictors of consumption of recalled foods

Cuite CL, Hallman WK
Rutgers, The State University of New Jersey

W3-C.2 Understanding consumer responses to food recalls

Hallman WK, Cuite CL, Hookeer NH
Food Policy Institute, Rutgers University

W3-C.3 Recalls, risk, and regulation: analysis of press coverage about lead-tainted toys

*Nicol AM, Hurrell AC**
University of British Columbia

W3-C.4 Listeriosis in the press: the variable status of a foodborne risk

Gauthier E
Agriculture and Agri-Food Canada

W3-C.5 Comparative analysis of consumer risk perception on food related hazard between countries

Hosono H, Niijama Y, Kudo H, Kawamura R, Kiyohara A, Kitoh Y
Kyoto University, Japan

W3-C.7 Cross cultural/dietary study on risk/benefit perception of main food products between Japan and Western Countries

Sekizawa J, Tsubouchida S
National Food Research Institute, Japan

1:30-2:10 PM
Salon E
W3-D Risk Analysis of Infrastructure Systems

Co-Chairs: Ross Collins, Michael Vedomske
Sponsored by EISG

1:30 pm W3-D.2
Cost consequence estimates for natural gas transmission and distribution incidents as a risk management tool

Simonoff JS, Restrepo CE, Zimmerman R*
New York University

1:50 pm W3-D.3
Solving multiple risks is better than solving one: risk-based co-benefit assessment for infrastructure investments

Zimmerman R, Restrepo CE, Simonoff JS
New York University

1:30-3:10 PM
Federal Hill
W3-E Systems Dynamics Meets Risk Analysis - Integrating Approaches to Improve Health and Environmental Decisions

Chair: Jennifer Kuzma

1:30 pm W3-E.1
Multi-method dynamic modeling applied to health systems safety research

Lee RC, Malczynski L, Cooke DL, Robleder T, Thompson K, Baker J, Sapient R, Elgie R, Richards M
University of New Mexico

1:50 pm W3-E.2
The impact of feedbacks, delays, and perceptions on the management of competing disease priorities

Duintjer Tebbens RJ, Thompson KM
Delft University of Technology, The Netherlands

2:10 pm W3-E.3
Uncertainty, variability, and time: adding dynamics to address real policy issues with respect to global polio risk management

Thompson KM, Duintjer Tebbens RJ
Kid Risk, Inc.

2:30 pm W3-E.4
Emerging nanomaterials and environmental risk: what can systems modeling approaches offer risk analysis?

Kuzma J, Johnson RL
University of Minnesota

2:50 pm W3-E.5
Methodology to manage risk in complex healthcare settings

Kazemi R, Mosleh A, Dierks M
University of Maryland, Harvard Medical School

<p>1:30-2:30 PM <i>Homeland</i> W3-F Use of Expert Elicitation and Subjective Information in Risk Analysis <i>Chair: Mark Burgman</i> <i>Sponsored by DARSG</i></p>	<p>1:30-2:30 PM <i>Fells Point</i> W3-G Application of Risk Analysis Tools for Evaluating Transportation-Related Decisions <i>Co-Chairs: Joost Santos, Rene Van Dorp</i> <i>Sponsored by EISG</i></p>	<p>1:30-3:00 PM <i>Kent</i> W3-H Symposium: Characterizing and Communicating Uncertainties Part 2: Methods Applied <i>Chair: Alexandre Zenie</i></p>	<p>1:30-2:30 PM <i>Pride of Baltimore</i> W3-I Vulnerability, Volatility, and Uncertainty in Benefits Assessment <i>Chair: Scott Farrow</i> <i>Sponsored by EBASG</i></p>	<p>1:30-3:00 PM <i>Gibson</i> W3-J Dealing with Natural Disasters in Latin America <i>Chair: Marcelo Wolansky</i></p>
<p>1:30 pm W3-F.1 Towards a universal deca-scale for risk assessment <i>Krishnamurthy N</i> <i>Self-Employed</i></p>	<p>1:30 pm W3-G.1 An oil outflow model for tanker collisions and groundings <i>van Dorp JR, van de Wiel G</i> <i>The George Washington University</i></p>	<p>1:30 pm W3-H.1 Quantitative uncertainty analysis: model case study <i>McKone TE</i> <i>Lawrence Berkeley National Laboratory</i></p>	<p>1:30 pm W3-I.2 Cost-effectiveness of blast protection for buildings: vehicle barriers and blast walls <i>Heatwole NT, Florig HK</i> <i>Carnegie Mellon University</i></p>	<p>1:30 pm W3-J.2 Preventive measures knowledge, risk perception and stress responses in people living near volcanic risk in Mexico <i>López-Vázquez E, Dorantes G, Sentiés M</i> <i>Universidad Autónoma del Estado de Morelos, Universidad de Valencia, Universidad de las Américas-Puebla</i></p>
<p>1:50 pm W3-F.3 A new approach to model cost and duration of projects in stochastic environments <i>Hajbagheri M, Yaraghi N</i> <i>Royal Institute of Technology (KTH)</i></p>	<p>1:50 pm W3-G.3 Transportation vulnerability assessment for a more dependable supply chain <i>Pinto CA</i> <i>Old Dominion University</i></p>	<p>1:50 pm W3-H.2 Qualitative uncertainty analysis: model case study <i>Zenié LA</i> <i>Joint Research Centre of the European Commission</i></p>	<p>1:50 pm W3-I.3 Is uncertainty assessment of cost benefit analysis a boon or a bane for regulatory policy making? <i>Jayaraman KR</i> <i>ICF International</i></p>	<p>1:50 pm W3-J.3 Early alert system for Río Sarapiquí-related outbreaks, Costa Rica <i>Jara M</i></p>
<p>2:10 pm W3-F.4 Making better use of experts <i>Burgman M, Speirs-Bridge A, Fidler F, McBride M</i> <i>University of Melbourne</i></p>	<p>2:10 pm W3-G.4 Runway safety at airports: a systematic approach for implementing ultra-safe options <i>Horowitz BM, Santos JR*</i> <i>University of Virginia</i></p>	<p>2:10 pm W3-H.3 Communicating results of qualitative and quantitative uncertainty analysis: model case study <i>Schümann M</i> <i>Hamburg Department of Social Affairs; Health and Consumer Protection</i></p>	<p>2:10 pm W3-I.4 Valuing risk <i>Farrow S</i> <i>UMBC</i></p>	<p>2:10 pm W3-J.4 Refining risk assessment practice vs making opportune informed decisions: a difficult match? <i>Wolansky MJ</i> <i>Argentine National Research Council, University of Buenos Aires</i></p>
		<p>2:30 pm Discussion</p>		<p>2:30 pm W3-J.5 Technological Risk Management (TRM) applied to Bogota case <i>Munoz F, Puerto G</i> <i>Private University</i></p>

3:30-5:10 PM

Baltimore A

W4-A Symposium: Advancing Mechanistic Knowledge for Microbial Risks

Chair: Peg Coleman

3:30 pm W4-A.1
Salmonella pathogenesis: what we learn from animal models
Slauch JM
University of Illinois

3:50 pm W4-A.2
Improving risk estimates for Listeria monocytogenes-induced stillbirths
Smith MA
University of Georgia

4:10 pm W4-A.3
Norovirus human challenge studies: “many a slip twixt the cup and the lip”
Moe CL, Tennis PFM
Emory University

4:30 pm W4-A.4
Prevention of cholera, an enteric disease devastating for developing countries
Huq A, Colwell RR
University of Maryland

4:50 pm Discussant
Gearhart J
Henry F. Jackson Foundation

3:30-5:10 PM

Salon B Baltimore

W4-B Trust and Communication

Chair: Michael Siegrist

3:30 pm W4-B.1
The role of trust in the risk of patient non-compliance
Chakeraborty S
Kings College London

3:50 pm W4-B.2
Information source use, trust, and risk perceptions of bloggers: a pilot study
Emami S, Desroches C
Division of General Medicine, Brigham & Women’s Hospital, Harvard Medical School

4:10 pm W4-B.3
Revisiting the dimensionality of trust in risk regulation: the case of nuclear power and local communities
Pidgeon NF, Venables D, Hemwood KL, Parkhill K, Simmons P
Cardiff University

4:30 pm W4-B.4
Trust, confidence, fairness and the acceptance of GMO field experiments
Siegrist M, Connor M, Earle TC
ETH Zurich, Switzerland

4:50 pm W4-B.5
Public engagement and the impact of fairness perceptions on decision acceptance and approval
Besley JC
University of South Carolina

3:30-5:00 PM

Salon A

W4-C Poster Platform: Evolution of RA Education: From ad hoc...

Chair: Martin Clauberg

W4-C.2 Risk and education: perceptions and practices of science educators
Gardner GE, Jones MG
North Carolina State University

W4-C.3 Professional ethics education for risk practitioners
Lundy SJ, Buckler S, Garelick H, Weller G, Watt J
Middlesex University

W4-C.4 Providing opportunities for training in human health risk assessment: lessons learned
Nance P, Maier A, Haber L
Toxicology Excellence for Risk Assessment

W4-C.5 Insights from the first ‘Risk Analysis in Education’ conference
Thran BH, Ross CS, Hassenzahl DM, Clauberg M, Louis GE, Cifuentes LA, Walker MJ
University of Nevada, Reno, Churchill County School District, Nevada, University of Nevada, Las Vegas, University of Tennessee, Knoxville, University of Virginia, P. Universidad Catolica de Chile, Consulting

W4-C.6 Post graduate education in risk
Watt JM, Lundy SJ
Middlesex University

W4-C.7 Monitoring of feedback from students as a tool to eliminate the risk of a poor quality of educational services
Zarayskaya IM
Russian State University for Innovation Technologies and Business

W4-C.8 Initiatives of the SRA education committee and open panel discussion
Louis GE, Cifuentes LA, Hassenzahl DM, Thran BH, Clauberg M
University of Virginia, P. Universidad Catolica de Chile, University of Nevada, Las Vegas, University of Nevada, Reno, University of Tennessee, Knoxville, Consulting

3:30-5:00 PM

Salon E

W4-D Symposium: National Children’s Health Study

Chair: James Quackenboss

3:30 pm W4-D.1
Overview and update on the National Children’s Study
Quackenboss JJ
US Environmental Protection Agency

3:50 pm W4-D.2
NCS assessment of child health outcomes: focus on the first two years
Goldman LR
Johns Hopkins Bloomberg School of Public Health

4:10 pm W4-D.3
Current approaches and future planning for exposure assessment in the National Children’s Study
Brown MT
The National Children’s Study, NICHD

4:30 pm W4-D.4
NCS plans and policies for providing data access and maintaining confidentiality of study participants
Park JE
National Institutes of Health

3:30-5:00 PM

Federal Hill

W4-E Symposium: Evolution Response to NRC

Co-Chairs: Dale Hattis, Lauren Zeise

3:30 pm W4-E.1
Musings on implementing the NRC unified framework in dose response assessment
Zeise L
California Office of Environmental Health Hazard Assessment

3:50 pm W4-E.2
Case study comparison of human health noncancer risk assessment models for use in benefits analyses
Greco SL, Hattis D, Axelrad D
Abt Associates Inc., Clark University, US Environmental Protection Agency

4:10 pm W4-E.3
Science and decisions recommendations for dose-response assessment: challenges and opportunities
Chiu WA
US Environmental Protection Agency

4:30 pm W4-E.4
Alternatives to pollutant-by-pollutant dose-response estimation for air toxics
Hattis D, Lynch M
Clark University

3:30-5:10 PM

Homeland

W4-F Risk Analysis for Microbial Exposures in Agricultural Workers

Chair: Frank Hearl
Sponsored by BSSG

3:30 pm W4-F.1
Occupational exposure limits: regulating exposures to microbial agents
Hearl FJ
National Institute for Occupational Safety and Health

3:50 pm W4-F.2
The animal human interface in food animal production
Silbergeld EK, Feingold B, Jeibler J
Johns Hopkins Bloomberg School of Public Health

4:10 pm **W4-F.3**
Microbial pathogens in the environment: a hydrological aspect of manure-borne pathogen transport
*Doe JB, Roodsari Reza**
US Department of Agriculture

4:30 pm **W4-F.4**
Calibrating risk assessments: the role for cost-benefit analysis
McLaughlin CF, Hearl FJ
US Food and Drug Administration- Center for Food Safety and Applied Nutrition

4:50 pm **W4-F.5**
Economic incentives for intervention
Pana-Cryan R
Centers for Disease Control NIOSH

3:30-5:10 PM

Fells Point

**W4-G Symposium:
Modeling Infrastructure
Failure Risk**

Chair: Seth Guikema
Sponsored by EISG

3:30 pm **W4-G.1**
Regional resilience of the health care sector in floods and earthquakes: as-scenario-based approach
*McDaniels T, Chang S, Longstaff H**,
Dharival R, Pajwani D
University of British Columbia

3:50 pm **W4-G.2**
Addressing vulnerabilities of the electric power system including interdependencies
Kroeger W, Eusgeld I, Probst P
ETH, Zurich

4:10 pm **W4-G.3**
Rapid assessment of post-hazard flow capacity of bridge transportation network considering structural deterioration
Lee Y-J, Song J, Gardoni P, Lim H-W
University of Illinois, Texas A&M University

4:30 pm **W4-G.4**
Estimating power outage duration due to hurricane landfalls in the US
Nateghi R, Guikema SD, Quiring SM
Johns Hopkins University, Texas A&M University

4:50 pm **W4-G.5**
Risk analysis of buildings with the Florida public hurricane loss model
Pita GL, Pinelli JP, Mitrani-Riser J, Gureley K, Hamid S, Jones NP
Florida Institute of Technology, Johns Hopkins University, University of Florida, Florida International University, Whiting School of Engineering

3:30-5:10 PM

Kent

**W4-H Ecological Risk
Assessment Issues in
Chesapeake Bay**

Co-Chairs: Jerry Cura, Charlie Menzjie
Sponsored by ERASG

3:30 pm **W4-H.1**
Perspectives regarding the comparative risks of environmental stressors on the Chesapeake Bay system historical timelines and management considerations
Iannuzzi TJ, Ludwig DF, Gibson G, Iannuzzi J
ARCADIS, US

3:50 pm **W4-H.2**
The ecological risk of a non-event potential consequences of failure of oyster restoration in Chesapeake Bay
Richkus WA, Menzjie C
Versar, Inc., Exponent

4:10 pm **W4-H.3**
Risk implications of biofuels for Chesapeake Bay: the need for a comparative life cycle approach
Menzjie CA, Becking B
Exponent Inc., Alexandria VA

4:30 pm **W4-H.4**
Risk-based sediment management in the Chesapeake Bay
Ciarlo M, Derrick P, Goodfellow W, Papageorgis C, Olsen K
EA Engineering, Science, and Technology, Inc.

4:50 pm **W4-H.5**
Evaluating the risk of initiating a reproductive population of Suminoc oysters from triploid aquaculture in Chesapeake Bay
Methratta E, Richkus W, Menzjie C
Versar Ecological Sciences and Applications, Exponent

3:30-5:10 PM

Pride of Baltimore

W4-I Applying Epidemiologic Principles in Developing Risk Assessments: Methodologies in Human Health, Plant and Animal Trade

Chair: Berhannu Tameru
Sponsored by BSSG

3:30 pm **W4-I.1**
Quantitative risk assessment of Rift Valley fever virus introduction through importation of live sheep and goats
Debeb BG, Habtemariam T
College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University

3:50 pm **W4-I.2**
Quantitative risk assessment model for salmonella and chilled broiler chicken carcasses from large-scale processors in Trinidad and Tobago
Dookeran MM, Baccus-Taylor GSH, Akingbala JA, Tameru B
University of the West Indies, Tuskegee University

4:10 pm **W4-I.3**
A quantitative risk assessment of multiple factors influencing HIV/AIDS transmission in HIV-seropositive men using Epidemiologic Problem Oriented Approach (EPOA) methodology
Gerbi G, Habtemariam H, Tameru B, Ngamwa D, Robnett V, Dibaba A
Tuskegee University

4:30 pm **W4-I.4**
Developing risk assessments in animal trade: the role of the EPOA methodology using beef importation as a likelihood pathway of introduction of FMD virus into USA
Ngamwa D, Tameru B, Habtemariam T, Bogale A, Robnett V, Wilson S
Tuskegee University

4:50 pm **W4-I.5**
A quantitative risk assessment for the likelihood of Escherichia-coli O157:H7 contaminating of beef carcasses in processing plants in the USA
Okeke n, Tameru B, Habtemariam T, Ngamwa D, Bogale A, Wilson S, Robnett V
Private University

3:30-5:00 PM

Gibson

**W4-J Global and
Transportation Risk**

Chair: John Sprink

3:30 pm **W4-J.1**
Emerging risk assessment for agencies regarding economically motivated adulteration, food fraud, and product counterfeiting
Spink J
Michigan State University, Anti-Counterfeiting and Product Protection Program (A-CAPPP)

3:50 pm **W4-J.2**
Development of tools for vulnerability assessment in the food supply
Slevin, DAM, Paoli G, Hartnett E
Canadian Food Inspection Agency, Risk Sciences International

4:10 pm **W4-J.3**
Food transportation safety: characterizing risk using expert elicitation
Ackerley NA, Sertkaya A, Lange R
Eastern Research Group, Inc. (NAA, AS); US Food and Drug Administration (RL)

4:30 pm **W4-J.4**
Diverse health risks caused by aflatoxin, putting the emphasis on where it belongs
Liu Y, Wu F
Department of Environmental and Occupational Health, University of Pittsburgh