

Alison Cullen, SRA President-elect

We welcome risk analysts from all over the world, and from every part of the field, to participate in four exciting days of workshops, technical sessions, and specialty group meetings, as well as other educational and networking opportunities. The 2008 SRA Annual Meeting kicks off on Sunday with a set of topical workshops (see page 3) followed by an evening Welcome Reception at which all at-

tendees will have a chance to mingle and enjoy hors d'oeuvres.

The technical program convenes each morning between Monday and Wednesday with a plenary session at which the membership will come together to hear renowned speakers (see pages 4 and 5). Each day will also feature technical sessions of individual presentations on every topic from nanotechnology to terrorism, from mental modeling to genetic markers, and beyond.

The plenary speakers this year

engage many aspects of the science and art of risk analysis. On Monday the focus is "Risk Management in a Complex World" with speakers Elisabeth Paté-Cornell and Yossi Sheffi presenting examples from game theory, operations research, and resilient enterprise.

On Tuesday we turn to "Challenges in Climate and Ocean Science" with speakers Kerry Emanuel and Eddie Bernard. This session will include a presentation of new approaches to predicting wind and hurricane risk and also an exploration of tsumani risk management.

Finally, our Wednesday plenary brings three perspectives after the conclusion of the 2008 U.S. Presidential election,

with "Risk Regulation Ideas for the New Administration" addressed by Richard Revesz, Sally Katzen, and John Graham.

And following the Wednesday plenary we will try something new. For those who would like to engage in further discussion, we offer a follow-on session where three additional speakers will join the plenary panel.



Our midday programs include specialty group meetings and networking over box lunches on Monday, a banquet lunch on Tuesday with the annual recognition and awards presentations as well as the Society's annual business meeting, and on Wednesday a return to the tradition of roundtable discussions on topics as varied as Risk Education Initiatives of SRA, a Code of Ethics for SRA, and recent National Research Council re-Photo courtesy of Greater Boston CVB ports on risk analysis.

The annual meeting provides many occasions to connect with old and new colleagues and to learn about emerging topics.

Two perennial favorites are the Monday evening Poster Session and the Wednesday afternoon Wine and Cheese Closing Reception with T-shirts sponsored by Bob Tardiff and the Sapphire Group and a chance to win a free registration for the 2009 SRA meeting!

Please keep an eye out for the release of the updated final program as the annual meeting draws near. In the meantime, please make your travel plans to join us in Boston!

(More on the annual meeting on page 3)

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## **President's Message**

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A year and the term of a Society for Risk Analysis (SRA) presidency fly by quickly. In my fourth and last President's Message, I want to reflect on 2008 and look ahead to the future growth of our Society.

In the past year we worked together to achieve several notable goals:

- The Second World Congress on Risk, held in June 2008 in Guadalajara, Mexico, co-chaired by Robin Cantor and Javier Urbina-Soria.
- The newly strengthened international structure of the SRA, giving greater voice to the presidents of the SRA regions through the Regions Committee.
- The launch of SRA-Latin America, led by Esperanza Lopez Vazquez, Luis Cifuentes, and Marcelo Wolansky.
- Preparations to form new regions such as SRA-China, SRA-India/Southeast Asia, and possibly SRA-Africa, with leadership from Regions Committee Co-Chairs Olivier Salvi and Elaine Faustman.
- Successful annual meetings in San Antonio, Valencia, Canberra, Osaka, and Boston.
- The successful transition of the Editorial Board at our flagship journal, *Risk Analysis*, led by Publications Committee Chair Kim Thompson, new Editor-in-Chief Mike Greenberg, new Managing Editor Karen Lowrie, and a strengthened slate of area editors. The journal is now eyeing its next major step: shifting to 12 monthly issues per year.
- A series of excellent events through the year, as well as workshops at the annual meeting, all coordinated by the Conferences and Workshops Committee, chaired by Jim Lambert. Notable among these was the nanoscale risk event in September led by Jo Anne Shatkin.
- Continued publicity for featured articles in the journal, led by the Communications Committee, chaired by Rick Reiss.
- Continued measures to increase membership benefits, led by Membership Committee Chair David Hassenzahl.
- A survey of risk curricula, led by Education Committee Chair Garrick Louis.
- A proposed study of the topics the SRA covers—or omits—led by Specialty Group Committee Chair Kara Morgan.
- Work on a Code of Ethics, led by Secretary Mitch Small.
- Work on SRA Policy Statements, led by Councilor Sharon Friedman.
- The beginning of the Pantheon of Risk Analysis, honoring past giants in the field.
- The second year of the New Initiatives grant-making process, chaired by Treasurer Tony Cox and soon to be led by Treasurer-elect Jack Fowle.

As the year ends, I am grateful to all of my colleagues on the SRA Council. And I owe special thanks to Dick and Sue Burk and their entire family/team at Burk and Associates, Inc., with whom it has been such a pleasure to run and build the SRA, and to Genevieve Roessler and Mary Walchuk, who bring us our RISK *newsletter*. Now I look forward to Alison Cullen's term as president. It has already been my delight to work with Alison through the past year, including serving on her Annual Meeting Committee to plan the exciting Boston meeting coming up in December—for which Alison has put together three riveting plenary sessions.

As I look ahead, I see not only the growth of the SRA around the world—which was my top priority as president—but also the imperative for the SRA to promote sound risk analysis in the United States.

Risk is the issue of the day, from terrorism, to food safety, to climate change, to the credit crisis threatening the world economy. Senator John McCain's Presidential campaign is calling Senator Barack Obama "too risky for America." Senator Obama is criticizing Senator McCain for poor risk analysis on the Iraq War and for favoring deregulation while lenders incurred excessive risks. The larger issue looms: is the American Century now at risk of crumbling because key decisions, both public and private, neglected sound risk analysis?

Whichever way one leans politically, the imperative is plain: America needs better risk analysis. The particular issues addressed during the election campaign are just a preview. There will be surprises, and new opportunities; new administrations must learn and adapt. An administration's method of thinking through risks and decisions will be more lasting and influential than what the candidate says on the campaign trail about particular issues.

Psychology and neuroscience suggest that the brain employs different pathways to process immediate reactions and considered decisions. Every time we confront a threat, we have to manage these two pathways to avoid panicking, waiting too long to act, or making other bad choices. Leaders in government face the same challenge. A working hypothesis is that, whatever the vicissitudes of future events, countries whose governments and leaders choose better methods of thinking through decisions will fare better in the ups and downs of history.

At the founding of this country, Benjamin Franklin articulated what he called his "prudential algebra": systematically comparing choices and their pros and cons so as to "judge better" and avoid "rash steps." Adam Smith said careful analysis is the antidote to ideology and passion. Great Presidents of both parties have followed this core advice. Abraham Lincoln and Franklin Roosevelt both assembled diverse cabinets to debate alternative perspectives and help the President reach well-reasoned decisions. Ronald Reagan and Bill Clinton both required risk analysis of new policies.

I believe that the SRA should contribute to this conversation. We are the Society *for* Risk Analysis, and we ought to say so—without taking positions on particular policies. Every U.S. President since the 1970s has required major new regulations to be evaluated through a structured analysis of risks and impacts. But recent crises reflect gaps in such oversight. The SRA could help broaden risk-based

(President's Message continued on page 8)



### SRA Annual Meeting Workshops Sunday, 7 December 2008

<u>Full-Day Workshops – 8 a.m.-5 p.m.</u> (Note: lunch is on your own for all workshops) Morning Half-Day Workshops – 8:30 a.m.-12:30 p.m.

**WK1: Probabilistic Risk Analysis with Hardly Any Data** Organizer: Scott Ferson

WK2: Introduction to Total Cost Assessment Organizer: Lise Laurin

WK3: Risk Analysis and MS Excel: No Need for Addins Organizer: William McGill

WK4: Linking Probabilistic Analyses to Decision Making Using Sensitivity Analysis Organizer: Amir Mokhtari

WK5: Evaluating the Human Relevance of Modes of Action in Animals Organizer: Stephen Olin

WK6: Improving Risk Governance: Defining a Better Process for Risk Communication and Stakeholder Participation Organizer: Ortwin Renn

WK7: From Discounting to QALYs to VSLYs and Other Cost Benefit Analysis Approaches to Help Inform Decision Making Organizer: Cristina McLaughlin

**WK8: Fundamentals of Security Risk Management** Organizers: Ed Jopeck and Julian Talbot



WK9: New Features and Models of the Benchmark Dose Software – BMDS Version 2.0 Organizer: Jeffrey Gift

> WK10: Risk Analysis: Fundamental Concepts, Applications and Controversies

Organizer: David Hassenzahl

WK11: Intermediate Topics in Chemical Mixtures Health Risk Assessment Organizer: Linda Teuschler

<u>Afternoon Half-Day Workshops –</u> <u>1:30-5:30 p.m.</u>

WK12: Introduction to Environmental and Health Aspects of Nanotechnology Organizer: Jo Anne Shatkin

WK13: Current Topics in Risk Analysis Organizer: David Hassenzahl

WK14: Chemical Specific Adjustment Factors: Evaluating and Using Data to Quantify Inter- and Intraspecies Extrapolation for Risk Assessment Organizer: John Lipscomb

For more workshop information go to http://www.sra.org/ events\_workshops\_2008\_Meeting.php.

### **Program Committee**

Many thanks to the members of the SRA 2008 Annual Meeting Program Committee who reviewed the submitted abstracts and scheduled the sessions developed for this year's meeting:

President-elect Alison Cullen (chair), Laina Bush, Michael Dellarco, Adam Finkel, Susan Flack, Tee Guidotti, Seth Guikema, Emma Hartnett, Sara Henry, Jim Lambert, Stanley Levinson, Steve Lewis, Igor Linkov, Margaret MacDonell, Kara Morgan, Rick Reiss, Martin Schultz, Jo Anne Shatkin, Trina von Stackelberg, Bob Tardiff, Kim Thompson, and Jonathan Wiener.

We express our deep gratitude to the Secretariat staff—in particular Lori Strong, Sue Burk, and Ruedi Birenheide—for its support during the entire process.



Photo courtesy of Greater Boston CVB

### The Society for Risk Analysis

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# Risk Analysis: The Science and the Art Monday, 8 December

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**Plenary Session: Risk Management in a Complex World** 

### "Three Models of Games and Risks: Some Challenges in Formulation"

- Elisabeth Paté-Cornell

Dr. Elisabeth Paté-Cornell is the Burt and Deedee McMurtry Professor in the School of Engineering and has been chair of the Department of Management Science and Engineering at Stanford University since its creation in January 2000. She is a member of National Academy of Engineering, the President's Intelligence Advisory Board, the board of Trustees of Aerospace Corporation, the NASA/JPL Technical Advisory Committee, and the board of advisors of the Naval Postgraduate School. She is a past president and a fellow of the Society for Risk Analysis. Her primary areas of teaching and research are engineering risk analysis, risk management, and decision analysis. Her research has focused on

the inclusion of both technical and organizational factors in probabilistic risk analysis models, with application to the management of the tiles of the space shuttle, offshore platforms, and anesthesia during surgery.

In her recent work, she has used game and risk analyses to address some national security and counterterrorism problems as well as management issues in industry.



### "Managing High Impact Low Probability Disruptions"

Yossi Sheffi



Dr. Yossi Sheffi is a professor at the Massachusetts Institute of Technology (MIT), where he serves as head of MIT's Engineering Systems Division and director of the MIT Center for Transportation and Logistics (CTL).

He is an expert in systems optimization, risk analysis, and supply chain management. Under his leadership CTL launched many new educational, research, and industry/government outreach programs, including two research and education centers in Spain and Colombia.

Outside the university, Professor Sheffi has consulted with numerous government and industry enterprises all over the world. He is also an active entrepreneur, having founded five successful companies.

He obtained his BSc from the Technion in Israel in 1975, his SM from MIT in 1977, and his PhD from MIT in 1978. He now resides in Boston, Massachusetts. For more information see http://web.mit.edu/sheffi/.

### **Tuesday, 9 December**

### **Plenary Session: Challenges in Climate and Ocean Science**

### "Assessing Hurricane Wind Risk in a Changing Climate"

Kerry Emanuel -

Dr. Kerry Emanuel is a professor of atmospheric science at the Massachusetts Institute of Technology (MIT), where he has been on the faculty since 1981, after spending three years as a faculty member at the University of California, Los Angeles. Professor Emanuel's research interests focus on tropical meteorology and climate, with a specialty in hurricane physics. His interests also include cumulus convection and advanced methods of sampling the atmosphere in aid of numerical weather prediction. He is the author or co-author of over 100 peer-reviewed scientific papers and two books, including Divine Wind: The History and Science of Hurricanes, recently released by Oxford University Press and aimed at a general audience, and What We Know about Climate Change, published by the MIT Press.



### "The Three Things You Need to Know About Tsunamis" – Eddie Bernard -





Dr. Eddie Bernard has served as director of the Pacific Marine Environmental Laboratory, one of the National Oceanic and Atmospheric Administration's (NOAA) oceanographic research laboratories, since 1983. He directs a broad range of oceanographic research programs including ocean climate dynamics, fisheries oceanography, El Niño fore-

casts, tsunamis, and seafloor spreading.

As a noted oceanographer and expert on tsunamis, Bernard has edited three books and published over 80 scientific papers, articles, and reports. He served as director of NOAA's National Tsunami Warning Center in Honolulu for three years, which influenced his research toward public safety. He is past chairman of the National Tsunami Hazard Mitigation Program, a joint federal/state effort (1997-2004) and past chairman of the International Union of Geodesy and Geophysics Tsunami Commission (1987-1995). He is a member of the National Tsunami Hazard Mitigation Program Coordinating Committee, the American Geophysical Union, the American Meteorological Society, and the Oceanographic Society.

Bernard has produced a scientific movie on tsunami research and has been featured in over 20 television specials on tsunamis, including interviews on the Larry King show following the 2004 Indian Ocean tsunami. He has received numerous honors and awards for outstanding performance in NOAA—including the Department of Commerce Gold Medal in 2004 and 2005 and the Presidential Meritorious Rank Award in 1993 and 2002. He was awarded one of the prestigious Service to America Medals, sponsored by the Partnership for Public Service, in 2008 for his leadership in creating a tsunami forecasting capability and raising the public's awareness of the tsunami hazard.

### Wednesday, 10 December <u>Plenary Session: Risk Regulation Ideas for the New Administration</u>

### - Richard L. Revesz -



Richard L. Revesz is dean and Lawrence King Professor of Law at New York University (NYU) School of Law.

His work on issues of federalism and environmental regulation, the valuation of human life and the use of cost-benefit analysis, and the design of liability rules for environmental protection has set the agenda for environmental law

scholars for the past decade.

His most recent book, co-authored with Michael Livermore, is *Retaking Rationality: How Cost-Benefit Analy*sis Can Better Protect the Environment and Our Health (Oxford University Press, 2008).

Since leaving government service in January 2001, Sally Katzen has been teaching both law students (University of Michigan, George Mason University, University of Pennsylvania) and undergraduates (Smith College, Johns Hopkins University, University of Michigan in Washington Program). She served almost eight years in the Clinton administration, first as administrator of the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB), then as Deputy Assistant to the President for Economic Policy and Deputy Director of the National Economic Council in the White House, and then as the Deputy Director for Management at OMB.

She has served on panels for the National Academies of Science and is a Fellow in the National Academy of Public Administration. Before joining the Clinton administration, Katzen was a partner in the Washington, DC, law firm of Wilmer, Cutler & Pickering, specializing in regulatory and legislative matters. Katzen has served in various leadership

Revesz graduated summa cum laude in civil engineering and public affairs from Princeton University, received an MS in civil engineering from MIT, and was awarded his JD by Yale Law School, where he was the editor-in-chief of The Yale Law Journal. Following judicial clerkships with Chief Judge Wilfred Feinberg of the United States Court of Appeals for the Second Circuit and Justice Thurgood Marshall of the United States Supreme Court, Revesz joined the NYU Law faculty in 1985, received tenure in 1990, and was appointed dean in 2002. He was recently appointed to the National Research Council's Committee on Health, Environmental, and Other External Costs and Benefits of Energy Production and Consumption. Revesz is a Trustee of the American Museum of Natural History, a Fellow of the American Academy of Arts and Sciences, and a Member of the Council on Foreign Relations.

### - Sally Katzen –

roles in the American Bar Association (including chair of the Section on Administrative Law and Regulatory Practice), as well as president of the Federal Communications Bar Association and president of the Women's Legal Defense Fund. She graduated magna cum laude from Smith College and magna cum laude from the University of Michigan Law School, where she was the first



woman editor-in-chief of the *Michigan Law Review*. Following graduation from law school, she clerked for Judge J. Skelly Wright of the U.S. Court of Appeals for the District of Columbia Circuit. She also served in the Carter administration for two years as the General Counsel of the Council on Wage and Price Stability in the Executive Office of the President.

#### - John D. Graham



John D. Graham is the new dean of the Indiana University School of Public and Environmental Affairs, where about 2,000 undergraduate and graduate students study environmental science and public affairs at two campuses (Bloomington and Indianapolis).

Dr. Graham is the former dean of the Pardee RAND Graduate School in California (2006-2008). Prior to

RAND, Dean Graham served in the White House Office of Management and Budget (OMB), where he led federal regulatory and information policy (2001-2006) for the George W. Bush administration.

Prior to his role at OMB, Graham was a professor of policy and decision sciences at the Harvard School of Public Health (1985-2001), where he founded and led the Harvard Center for Risk Analysis.

Graham's personal research interests include government reform of risk regulation, energy and the environmental policy, U.S.-E.U. relations, and the future of the automobile in both developed and developing countries. Graham is a past president of the Society for Risk Analysis (1995) and a former staff associate to the Committee on Risk and Decision Making of the National Research Council/National Academy of Sciences (1979-1980).

Graham earned his BA (politics and economics) at Wake Forest University (1978), his MA (public affairs) at Duke University (1980), and his PhD (public affairs) at Carnegie-Mellon University. He also received research training in economics at the Brookings Institution (1982-1983) and in environmental science at the Harvard School of Public Health (1983-1984).

## **Committees**

### **Conferences and Workshops Committee**

Jim Lambert, Chair

SRA

Our Conferences and Workshops Committee had an active and effective summer coordinating 14 Sunday workshops for the December Society for Risk Analysis (SRA) annual meeting in Boston. Workshops include old favorites and some innovations. The full details are available at www.sra.org. Thanks particularly goes to the leadership of Conferences and Workshops Committee members Margaret MacDonell and Jacqueline Patterson, and to David Drupa of the Secretariat for bringing order to the budgeting process.

We have been pursuing an SRA "new initiative" to capture to audio and/or video some of our workshop content for SRA members in the developing world and elsewhere who may not have the resources to attend the annual meetings. Members may contact Rick Belzer or Greg Paoli to find out more or to join the initiative.

We are interested in providing SRA recognition (and associated advertisement and use of the SRA logo) to professional and academic events. See our Web page from the "events" link at sra.org for the instructions and forms used to propose our affiliation to other events. Conferences and Workshops Committee member Katy Walker can help with these proposals.

We welcome any SRA members who might be interested to join our Conferences and Workshops Committee. We meet monthly or more often by teleconference and once in person at the annual meeting.

The Conferences and Workshops Committee will welcome your ideas for events of all types both on and off the annual meeting. Contact Conferences and Workshops Committee Chair Jim Lambert (lambert@virginia.edu).

### **SRA-Recognized Events**

### **International Regulatory Reform Conference 2008**

http://www.bertelsmann-stiftung.de/cps/rde/xchg/ bst engl/hs.xsl/prj 53890 87477.htm

17-18 November 2008

Berlin, Germany

### Managing the Social Impacts of Change from a Risk Perspective

http://www.kent.ac.uk/scarr/events/events.htm

15-17 April 2009 Beijing, China

2<sup>nd</sup> International Conference on Risk Analysis and Crisis Response

> RACR2009@gmail.com 19-21 October 2009 Beijing, China

### **Specialty Groups Committee**

Kara Morgan, Chair

The specialty groups (SG) have been very busy the last few months. Each SG plays a significant role on the annual meeting Program Committee, which met in June in Rosslyn, Virginia. The annual meeting Program Committee plans the sessions for the annual meeting from the submitted symposia and individual abstracts. Each SG plans the oral and poster presentations in its topic area.

The SGs also reviewed student extended abstracts to choose a student merit award. Some SGs require full-paper submissions. The student merit awards will be presented at the annual meeting, during the Monday lunch session.

Many SGs are now asking for nominations for new officers and will be holding elections for 2009. You can find contact information for your SG from the SRA home page. Go to "About SRA" and click on "Subject Matter Specialty Groups."

Don't forget to attend your SG's meeting at the SRA annual meeting during the Monday lunch session. Are you involved in an SG? If not, please consider this great way to get to know people in your professional area at SRA.

### **Regions Committee**

### Olivier Salvi, Co-Chair

### Process of Creation of SRA-India (or SARC) Initiated

Following the creation last June of the Society for Risk Analysis (SRA)-Latin America, the process of structuring the risk analysis community in various parts of the world is continuing.

An initiative has just started to create the SRA-India or SARC (South Asian Regional Cooperation including Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka), with the strong involvement of local organizations such as insurance institutions and several research centers. It is planned to have a formal discussion on the creation of the regional organization during the 2008 SRA Annual Meeting in Boston and to organize a workshop to get the risk analysis community together in spring 2009, for example, in India. If you are from this region of the world and are interested in joining the initiative, please contact Olivier Salvi (olivier.salvi@ineris.fr) and Elaine Faustman (faustman@u.washington.edu).

## Meeting of the Presidents of SRA Regions in Valencia, Spain, on 24 September 2008

After the recent meetings of SRA regional leaders in San Antonio and Guadalajara, and the revised structure of the SRA adopted in June 2008 to strengthen the international voice and growth of the regions (see RISK *newsletter*, Third Quarter 2008, pages 2-4), the presidents of the SRA regions met in Valencia to continue work on the internationalization of the Society.

Present at the meeting were Roberto Bubbico (SRA-Europe president, who kindly hosted the meeting), Ann Enander (SRA-Europe president-elect), Valery Lesnykh (SRA-Russia officer), Esperanza Lopez Vazquez (SRA-Latin America president), Jun Sekizawa (SRA-Japan officer), Chongfu Huang (RAC-China president), Olivier Salvi (SRA Regions Committee co-chair), and Jonathan Wiener (SRA president).

The regions meeting discussed issues including:Sharing information and experiences on different organi-

zational models for the regions.

• Elaborating a strategy to create new SRA regions and to stimulate the creation of a risk analysis community in countries with a more recent history of risk analysis.

• Discussing strategies for organizing the next World Congress on Risk, in collaboration with the SRA Executive Secretariat.

The presidents of the SRA regions, through the Regions Committee, will provide input to the Council on all the issues mentioned above.

### 2008 SRAAnnual Meeting

The work on the role and activities of SRA regions in the Society will continue in Boston, during the 2008 SRA Annual Meeting, on 9 December (7:00 to 8:00 a.m.). Members of the regional organizations are invited to provide input and thoughts either to the leaders of their regions or to SRA Region Committee chairs.



At the Valencia meeting, Front, left to right: Ann Enander (SRA-Europe president-elect), Roberto Bubbico (SRA-Europe president), Esperanza Lopez Vazquez (SRA-LA president); Back, left to right: Olivier Salvi (Regions Committee), Jun Sekizawa (SRA-Japan), Chongfu Huang (Risk Analysis Council-China), Jonathan Wiener (SRA president), Valery Lesnykh (SRA-Russia)

## **Specialty Groups**

### Engineering and Infrastructure Specialty Group www.sra.org/eisg

Seth D. Guikema, Chair

SRA`

The Engineering and Infrastructure Specialty Group (EISG) has had an active quarter, and we are looking forward to a great 2008 Society for Risk Analysis (SRA) Annual Meeting. We have an exciting set of sessions lined up, and we encourage you to attend one or more of them to learn about the exciting ongoing risk analysis work in the infrastructure and engineering area. We also encourage you to attend the lunch and EISG business meeting at the annual meeting.

One notable event in the engineering and infrastructure arena is the release of the National Infrastructure Protection Plan (NIPP) planned for late September, just as the newsletter was going to print. We thank all of the SRA members who commented on the 2009 draft NIPP. If you would like a link to the copy of the plan, please contact Seth Guikema (sguikema@jhu.edu), Kenneth Crowther (kgc4e@virginia.edu), or William McGill (wmcgill@ist.psu.edu).

Finally, EISG reminds you to vote for the vice-chair position on the Executive Committee. The vice-chair will serve for a one-year term and will become chair the following year. The election is occurring by email ballot, and ballots are due by 1 November. We urge you to vote for your new vice-chair. New officers will begin their terms at the conclusion of the EISG annual business meeting, which will be held at the 2008 SRA Annual Meeting in Boston. The current officers are Seth Guikema (chair through 2008), Kenneth Crowther (vice-chair through 2009), and William McGill (secretary/treasurer through 2009). More information about the specialty group, including its charter, can be found at the specialty group Web page linked through www.sra.org/ about\_specialty\_groups.php.

If you are not yet a member of EISG and would like to be, please be sure to check the EISG box when you renew your membership when registering for the annual meeting. EISG is still a great deal with dues of \$0.

### Risk Communication Specialty Group http://www.sra.org/rcsg/

### Tee Guidotti, Chair

The Risk Communication Specialty Group (RCSG) received and reviewed over 100 abstract submissions for the 2008 SRA Annual Meeting, which have been consolidated into a continuous track of symposia, poster platforms, and sessions on the science and practice of risk communication and on specific risk issues ranging from food safety to catastrophic events. Among interdisciplinary sessions that include RCSG representation is a session summarizing the highly successful conference put on by the Emerging Nanoscale Materials Specialty Group in Washington, DC, in September.

We appreciate the response to the call for abstracts and look forward to an outstanding annual meeting this year in Boston.

The RCSG holds a Student Paper Competition each year. We would like to thank our sponsor Exxon-Mobil for its support and for providing the awards. Past winners have gone onto leadership positions in the specialty group and the field. This year, Bob Griffin (AAAS Fellow as of this year—congratulations Bob!—Marquette University) is again managing the competition. We appreciate his dedication and the consistency and high standards he has brought to the process.

The RCSG will change leadership this fall as Cindy Jardine (University of Alberta) assumes the chair. Other positions on the executive committee will open as well. We invite members of the RCSG to stand for election and volunteer.

Risk communication is a fundamental skill set to convey risk information effectively, a means of democratizing risk decisions, a systematic approach to the essential communicative function in support of risk management, and a behavioral science that draws on cognitive psychology and risk perception at its roots. It is therefore a technique, a path to environmental justice, an art, and a discipline. SRA members are welcome to participate.

### **Decision Analysis and Risk Specialty Group**

Martin Schultz, Chair

The 2008 SRA Annual Meeting this year includes a full program for those interested in the area of decision analysis and risk. The program will include presentations on multicriteria decision analysis, bioterrorism, counter terrorism, contaminated sediment management, nanomaterials, riskbased decision making in federal agencies, and much, much more. The program this year was developed from the 99 abstracts, 22 symposia proposals, and 17 posters submitted in the field of decision analysis and risk.

The Decision Analysis and Risk Specialty Group (DARSG) exists to facilitate the exchange of knowledge and ideas, encourage collaborative research, and provide leadership on the use of decision analysis and risk tools in policy and practice. Over the past year, DARSG membership has increased approximately 15 percent. As of July 2008, the roster includes 347 members of which 86 percent are regular SRA members and 14 percent are students. Members are employed in industry or consulting services (35 percent), university (22 percent faculty and 14 percent students), government (14 percent), and nonprofit organizations (4 percent). Thirty-two percent of DARSG members are located in 32 countries outside the United States. The countries most commonly represented are Canada (23 members), the United Kingdom (13 members), Australia (9 members), Japan (8 members), and Sweden (7 members).

The DARSG will hold its annual meeting at the 2008 SRA Annual Meeting in Boston. The agenda for this meeting includes a review of developments over the past year, a survey of group membership, a discussion of future directions, announcement of new officers, and announcement of this year's student merit award winner. If there is any business you would like included on the agenda for this meeting, please contact the chair.

### Dose Response Specialty Group www.sra.org/drsg

#### Sara Henry, Chair

The Dose Response Specialty Group (DRSG) will be sponsoring a poster platform session at the 2008 SRA Annual Meeting titled "Analysis of Genomic Dose-Response Data for Risk Assessment: Better Science or Just a Pretty Picture?" Speakers will include Elaine Faustman speaking on toxicogenomics and systems-based approaches for dose and temporal response modeling, Jeff Gift speaking on use of toxicogenomic data in chemical risk assessment, Richard Judson speaking on the Environmental Protection Agency ToxCast Program, Craig Rowlands speaking on comparative benchmark dose estimates for genomic data, Russell Thomas speaking on the use of genomic dose-response data to define mode-of-action and low-dose behavior of chemical toxicants, and Lyle Burgoon speaking on automated quantitative toxicogenomic dose-response modeling.

The time of the DRSG annual business meeting and the DRSG mixer will be in the meeting program and everyone with an interest in dose response is invited.

The DRSG also sponsors several teleseminars yearly for its members and anyone interested who wishes to dial in. See www.sra.org/drsg.



### SRA to Induct Past Pioneers into the "Pantheon of Risk Analysis"

In December 2007, the Society for Risk Analysis (SRA) Council approved a proposal by Jonathan Wiener, Jim Wilson, Chris Whipple, Robin Cantor, and Elaine Faustman to create a "Pantheon of Risk Analysis"—a series of biographical profiles of deceased pioneers of risk analysis, posted on the Web.

In addition to honoring past giants in the field, the Pantheon is intended to enhance public understanding of the field and of the SRA, to illustrate what risk analysis has done and can do for the public good, and to attract new members to the SRA and new students to the field. The Pantheon is overseen by the past president each year. SRA members are invited to nominate candidates for induction; in 2008-2009, nominations should be emailed to Jonathan Wiener (wiener@law.duke.edu). So far, we have received several nominees, including Thomas Bayes, Daniel and Jakob Bernoulli, Mary Douglas, Paracelsus, Blaise Pascal, Norman Rasmussen, John Snow, Chauncey Starr, and Amos Tversky.

### (President's Message continued from page 2)

oversight to embrace additional crucial policy areas such as banking, finance, and counterterrorism; to cover choices not to act (e.g., climate) or to deregulate (e.g., banking) as well as to regulate; and to cover legislation as well as regulation. Risk analyses in all of these areas should look at not one but multiple scenarios of hazard, harm, and policy impacts, and at ancillary impacts (both harmful and beneficial).

The SRA, without adopting positions on particular policies, should be able to speak up for risk analysis as a way to address major public decisions. In addition to the steps just noted, the SRA could support, for example, a "Science Debate" in each election (a call to which Baruch Fischhoff and I have each signed our names in 2008); a mechanism to vet the risk analysis qualifications of nominees to key government positions; and a White House Council of Risk Analysts to advise the President and help coordinate risk issues government-wide.

In my view, the SRA needs the world, and the world needs the SRA. I hope the SRA will continue to grow geographically around the world and topically across problem areas. I look forward to working with you to foster better risk analysis and better decisions.

Jonathan B. Wiener

## What Do We Do?

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## a quarterly look at the incredibly diverse field of risk analysis — Elisabeth Paté-Cornell

### What is your job title?

SRA

**Paté-Cornell:** I am the chair of the department of Management Science and Engineering at Stanford University. I also hold the Burt and Deedee McMurtry professorship in the School of Engineering.

### How is risk analysis a part of your job?

**Paté-Cornell:** As an engineering professor, I teach and do research in the field of risk analysis and, more specifically, engineering risk analysis. The objectives are to identify the failure scenarios and failure modes of a system, to find possible ways of reducing the risk, and to allocate scarce resources to that effect. The tools that I use are systems analysis, probabil-

ity, and economic estimation of the outcomes. In the process, I have been interested in warnings and warning systems, i.e., the observation and processing of relevant information. I have also designed models to link the performance of systems to the decisions and actions of the people directly involved and, in turn, to the management decisions that affect their behavior. More recently, I have looked at the way game analysis could be used in risk analysis, in problems that involved the management of engineering projects but also questions of security. I have applied these methods and models to all kinds of different fields, for example, space systems (such as the space shuttle), medical systems (anesthesia in operating rooms and medical devices), and national security issues (prioritizing terrorist threats and counterinsurgency policy analysis). I teach a graduate course in risk analysis as well as a project course where the students solve real problems for real organizations. I also supervise doctoral students on projects that are either internally or externally funded.

### How did you decide to pursue this career?

**Paté-Cornell:** I started my academic career at Massachusetts Institute of Technology. I was very much interested in decision analysis, but I wanted to focus on the engineering part of the problem. The Society for Risk Analysis (SRA) was created around that time and I decided that risk analysis represented a good fit between my interests and the existing needs that I perceived when the SRA started to take shape.

## What got you to where you are in the field of risk analysis today?

**Paté-Cornell:** By getting good students and research funding. The rest is up to you . . . I met the right people at the right time, but I am always looking for opportunities and new areas about which I may not know much when I begin, but that I find interesting. I have also been very active



in government circles, the federal government in particular, on various boards including some of the science boards of the Department of Defense where I had the opportunity to use the methods that I teach to address very real problems at a high level. And that was an opportunity to explain to people at those levels what we are actually doing and why.

## What is the most interesting/exciting part of your job?

**Paté-Cornell:** Discovering and formulating new problems in terms that may not be the norm for the people involved. In that process, meeting some fascinating people and learning entirely new things.

Explaining our results and seeing some implementation, at a level where risk analysis is perceived as a need but the methods still look mysterious. Getting people to listen when they have never thought in those terms and see them discover that it really makes sense . . .

### What would you recommend to those entering the field of risk analysis interested in a job like yours?

**Paté-Cornell:** Get the fundamentals right and explore new basic ways of treating complex problems. Dive into applications that you find exciting and fun. Don't be afraid of what you don't know. Just learn from people you like and who are able to teach you what you need. And in the process, you will solve important problems and you may even make some good friends.

## How has membership/involvement in the SRA helped you in your work?

**Paté-Cornell:** The SRA, as I said earlier, was critical in shaping my career at the beginning because it gathered people who shared my interest. It was the right environment for me to learn about risk analysis methods and to meet people who were working in similar fields. It was also an opportunity for me to listen to people who were approaching some similar problems differently, as well as researchers and practitioners who were addressing fundamental issues relevant to my work, but of which I was not a specialist. Some results from the social sciences for instance, were critical to my work on the management aspects of system reliability.

### Is there anything else you would like to add?

**Paté-Cornell:** Just how fortunate I am to have had the support of the SRA in the early stages of my career, and to express my desire to give back to young researchers what I have received from my senior colleagues when I needed it.

### **Regional Organizations**

### SRA-Japan http://www.sra-japan.jp/english/

#### Akihiro Tokai, President

SRA-Japan will hold its 20<sup>th</sup> memorial annual academic meeting at Kansai University in the city of Suita, Osaka prefecture, Japan, 29-30 November 2008. The organizing chairman is professor Shoji Tsuchida, former president of SRA-Japan. This meeting is the largest academic meeting on the topic of risk in Japan. There are about 100 or more oral presentations registered and we are planning the international session on the issues of the state of the art of risk science. Please come to Japan and join us!

SRA-Japan has two Web sites, the Japanese home page (http://www.sra-japan.jp/cms) and the English page (http://www.sra-japan.jp/english). You can access the SRA-Japan 2008 Annual Conference page (http://www.sra-japan.jp/SRAJ2008HP) through the SRA-Japan English page. However these two pages are currently written in different formats. Now we are planning to revise both the Japanese and English versions of our home pages. The new pages will be more consistent and easier to use.

### SRA-Latin America http://www.sralatinamerica.org

*Esperanza Lopez Vazquez, Luis A. Cifuentes, and Marcelo J. Wolansky, Interim Executive Council* 

### The Latin American Regional Group of SRA Starts Its Activities!

After a process that lasted several years, the creation of SRA-Latin America (SRA-LA), the Latin American Regional Organization of the SRA, was announced by SRA President Jonathan Wiener during the recent 2<sup>nd</sup> World Congress on Risk in Guadalajara, Mexico (9-12 June 2008). Since then, the Interim Executive Committee of SRA-LA has been working relentlessly to formalize the group. Taking advantage of the presence of nearly 50 colleagues from Latin America in the Guadalajara event, the first regional group meeting was held to inform the prospective members of the group's mission and objectives and of the organizational and administrative tasks that should be performed in the short term according to the bylaws of the group. First among these activities is the incorporation of members and the call for elections to fill all elective positions of the Executive Committee. Upon receipt of this newsletter, the election process should be under way, and thus we believe that during the next annual meeting of SRA, in Boston, we will have the first Executive Committee in full duty!

The main objective of SRA-LA is to promote risk research and knowledge and understanding of risk analysis techniques within Latin America. The group aims to become a focal point for interaction among risk researchers and analysts from Latin America, facilitating communication and sharing of ideas and techniques between them, and identifying and addressing regional issues in the field of risk analysis. To promote debate and to impress decision makers on the usefulness of risk research and risk analysis, the group will hold a biannual meeting. Right now the group is in the process of recruiting new members. So far, we have about 50 members from a wide range of disciplines, e.g., from volcanology and civil defense to risk communication and environmental toxicology. Incorporating as many members as possible is a priority in these initial stages of SRA-LA. All individuals from academia and professional or government agencies who have an interest in risk issues in Latin America are welcome to join our group, even if they don't live or work within the region.

We would like to once again thank all those who made this opportunity possible. We hope to learn how local experiences can transcend beyond the limits of institutions, cities, or countries, contributing through our organization to create and improve prevention, monitoring, remediation, and management programs that efficiently deal with risk-related problems in our Latin American communities.

We invite you to visit our Web site and to send us your suggestions and comments: contacto@sralatinamerica.org.

### **SRA-Europe**

### http://www.sraeurope.org

Julie Barnett, SRA-E Communication Officer

### 18<sup>th</sup> SRA-E Conference

Plans are well under way for the 18<sup>th</sup> SRA-Europe (SRA-E) conference to be held in Karlstad, Sweden, from Sunday, 28 June, until Wednesday, 1 July 2009. SRA members who choose to be affiliated to the SRA-E Regional Organization (\$40) when they renew their 2009 membership will be entitled to a reduction of at least \$50 (currently around 33 euros) on the conference fee.

We are also pleased to announce two Karlstad Conference Studentship Awards, each worth 500 euros. Students wishing to apply for an award will be required to submit an abstract and a short CV and to describe their motivation for wishing to attend the conference. Applications will be assessed by an awards committee. Details of how to apply will be announced later this year.

### 17th SRA-E Conference

Following an initial meeting at the World Congress in Guadalajara, the presidents of various SRA regions had a further fruitful meeting at the 17<sup>th</sup> Annual Conference of SRA-E (Valencia, Spain, 22-25 September 2008). The meeting participants addressed many important topics of interest for the future of the Society, including the next World Congress.

### **China-Europe Risk Forum**

As a follow-up to the strong participation of European scientists at the 1<sup>st</sup> Risk Analysis and Crisis Response Conference in China, in September 2007, Professor Chongfu Huang has proposed to the president of SRA Europe, Roberto Bubbico, that they co-organise the 1<sup>st</sup> China-Europe Risk Forum in October 2009, in Beijing.

The China-Europe Risk Forum aims at developing partnerships between Chinese and European scientists in the field of risk analysis. It will involve exchanging results of ongoing research programmes, jointly defining research programmes, and preparing common projects and shortterm initiatives. The forum will last two days and deal with the general theme of emerging risks. The focus will be upon emerging risks related to new materials, technologies, and products, as well as new production processes and complex industrial systems and transport systems and networks. Further topics to be addressed include development and integrations of improved approaches and methods for risk assessment and management, as well as emerging risk policies, monitoring, governance, and communication.

On each topic, a group of 6 to 12 scientists drawn from both regions will start working together. More information on this forum will be published at www.sraeurope.org.

If you are interested in taking part in the initiative, please contact the SRA-E Secretariat.



At the meeting to prepare the 2009 China-Europe Risk Forum, left to right, Olivier Salvi (SRA-E past president), Roberto Bubbico (SRA-E president), Chongfu Huang (Risk Analysis Council president), Ann Enander (SRA-E president-elect), and Liu Yan (Beijing Municipality)

SRA

### New England www.sra-ne.org

#### Jonathan Levy, President

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The New England Chapter is looking forward to an exciting year of events, including seminars and short courses on some emerging topics in the field of risk assessment. Our first seminar of this academic year will be held 12 November 2008, on the topic of nanomaterials and risk assessment. This seminar will be an interdisciplinary look at this complex topic, with presentations from Jo Anne Shatkin of CLF Ventures, Christopher Long of Gradient Corporation, and Joe Brain of Harvard School of Public Health. SRA-New England will also be co-sponsoring a oneday short course on the topic of nanotechnology with the North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry (SETAC). More information about this short course can be found at www.nacsetac.org.

We are also planning our second seminar, which will be held this winter on the topic of the National Research Council report on improving risk analysis methods at the U.S. Environmental Protection Agency, subsequent to the public release of this report. We look forward to a lively discussion including members of the National Research Council committee and a variety of discussants.

For the 2008-2009 year, we are also exploring some new initiatives, including the possibility of a cross-university poster session this spring that will help increase communication among graduate students, postdoctoral researchers, and faculty members in the field of risk analysis across New England, as well as between academia and other sectors. For the latest information about seminars and other events, or to provide feedback to officers of SRA-New England, please visit www.sra-ne.org (or just come chat with us at the upcoming 2008 SRA Annual Meeting in Boston).

## News and Announcements

### Enabling the Next Generation of Hazards and Disasters Researchers: Call for Fellowship Applications

Dr. Tom Birkland of the School of Public and International Affairs at North Carolina State University, and the entire mentoring team, is pleased to call for applications for 16 new junior faculty fellows in our project "Enabling the Next Generation of Hazards and Disasters Researchers," funded by the National Science Foundation. The project Web site is at http://www.ncsu.edu/project/nextgen/.

This is the third round of a very successful mentoring and training program that seeks to introduce junior faculty to the study of natural, technological, and social hazards and disasters. The mentoring team, which will work directly with the junior faculty fellows, is highly interdisciplinary and represents a broad range of social science and engineering perspectives.

We seek fellows who are in tenure-track positions but who have not yet attained tenure and promotion. We seek applications from persons in academic departments with strong doctoral programs, as well as nondoctoral programs with substantial records of preparing students for research careers. We particularly seek applications from members of groups underrepresented in our research field—including especially women and racial and ethnic minorities. Fellows will be selected through a competitive application process. Applications are due on or before 15 February 2009. Fellows will participate in an intensive two-year mentoring program. In addition, fellows are required to attend an orientation and program kick-off workshop in Boulder, Colorado, in July 2009 and a second workshop tentatively planned for June 2010 in Washington, DC. The fellowship covers travel expenses and offers a modest stipend.

Fellows will be introduced to the methods and theoretical perspectives of disaster research and will have the opportunity to meet with some of the leading researchers in the field and within their individual disciplines. Upon completion of the two-year program, fellows will have written scholarly articles, book proposals, grant proposals, or a combination of these products.

Potential applicants are urged to visit the project Web site (http://www.ncsu.edu/project/nextgen) and to direct questions to Professor Tom Birkland at 919-513-7799 or via email (tom\_birkland@ncsu.edu). The project Web site contains application materials and information about the project mentors.

### News and Announcements

### Nano Risk Analysis: Advancing the Science for Nanomaterial Risk Management

Jo Anne Shatkin, CLF Ventures, Inc.

SRA

The Emerging Nanoscale Materials Specialty Group (EMNMS) held the first Society for Risk Analysis (SRA) public workshop on issues of nanotechnology and risk in Washington, DC, at the George Washington University 10-11 September 2008—"Nano Risk Analysis: Advancing the Science for Nanomaterial Risk Manage-

ment." Workshop participants presented and discussed a series of white papers addressing how risk analysis can advance our understanding of nanomaterial behaviors and the pressing needs for conducting risk analysis for nanomaterials. Nearly 90 participants from international government, industry, academia, associations, and consulting organizations brought their perspectives to bear on a diversity of issues relating to risk analysis.

One unique aspect of the workshop was the convening of experts in

risk analysis with nanotechnology developers, decision makers, and researchers. The format was also unique in

that it was open to the public but structured as an interactive expert workshop. The draft white papers, which had been prepared by nanotechnology and risk researchers, many of whom had never worked together previously, were presented and formed the foundation of subsequent discussions.

First, three discussants commented on each of the papers, and then workshop participants vetted the ideas presented in each paper during breakout sessions and again in plenary. This format led to the generation of new ideas and networks. The topics and co-authors were uncertainty analysis (Greg Paoli, Jo Anne Shatkin), exposure assessment (Linda Abbott, Andrew Maynard), dose response analysis (Nigel Walker, Rick Canady), risk characterization (Richard



Data Gaps Panel, left to right, Jen Sass (Natural Resources Defense Council), Nancy Rachman, (Grocery Manufacturers Association), Jeff Morris (U.S. Environmental Protection Agency), Andy Atkinson (Environment Canada), Phillipe Martin (European Commission), Jennifer Kuzma (University of Minnesota), Bill Gulledge (American Chemistry Council), and panel organizers Lori Sheremeta (National Institute of Nanotechnology) and Ron White (Johns Hopkins University)



Dose Response Panel, left to right, Bernadene Magnuson (Cantox), Tee Guidotti (George Washington University), Ray David (BASF), Nigel Walker (National Toxicology Program), and Rick Canady (U.S. Food and Drug Administration)

Williams, Kristen Kulinowski, Garrick Louis), and risk communication (Ann Bostrom, Ragnar Lofstedt). The white papers are now under revision and are planned to

be published as a series, which may also include additional contributed papers from participants.

Vicki Colvin of Rice University set the stage as day one keynote speaker, framing the issues in terms of the diversity of materials and formulations as a source of complexity, the potential to engineer safer materials, and the need

> for twenty-first-century approaches to risk communication.

The first day was capped by a panel discussion among seven distinguished panelists who offered a breadth of perspectives on data gaps and research needs for improving risk analysis of nanoscale materials and nanotechnology. One area of general agreement was the need for risk frameworks to assess nanomaterial and nanotechnology risks across product life cycle and in the context of their use.

Representatives of regulatory agencies in Europe, Canada, and the United States agreed that existing risk models must

> be considered in terms of the unique attributes of nanomaterials, and adapted, but not replaced. It will be critical to understand exposure potential, and nuances of dose response assessments, which require an adaptive approach to management.

> All agreed that a case-by-case approach is the most logical and likely path to understanding the dimensions of risk important for nanomaterials and nano-technologies, but also indicated the need for an overarching frameworkor a "road map"-for developing data and environmental health and safety research.

> Most agree a life-cycle framework for risk analysis is warranted and appropriate.

> Panel participants expressed the need for a mechanism to coordinate and share data and results

from the many different efforts currently underway internationally to develop data. For example, Canada will likely issue a mandatory call for data, the Organisation for EcoU.S. and U.K. governments have received data in voluntary calls. The U.S. Environmental

nomic Co-Operation and Development Working Party on

Nanotechnology is developing a standardized data set, and

Protection Agency is working toward risk prevention and mitigation, encouraging product safety by design, building on existing efforts in pollution prevention, "green chemistry," and Design for the Environment. There is a need for an independent and trusted entity to make new findings about risk transparent and understandable. Visual and graphical tools are needed to improve communication about these complex topics. One suggestion was for SRA to bring our extensive



Exposure Assessment Panel, left to right, Discussants Margaret MacDonell (Argonne National Laboratory), David Dankovic (National Institute for Occupational Safety and Health), and J. Michael Davis (U.S. Environmental Protection Agency National Center for Environmental Assessment) respond to Andrew Maynard (Project on Emerging Nanotechnologies) and Linda Abbott (United States **Department of Agriculture).** 

ing, and communicating the risks from nanotechnologies and nanomaterials, (2) engineered nanomaterials may present unique attributes, but share challenges with other emerging environmental substances and technologies in terms of assessing their risks, (3) the breadth of physical characteristics that may contribute to the toxicity and environmental behavior of nanomaterials increases the complexity of assessing risks, and a goal should be to reduce this complexity, (4) a top-down/ bottom-up approach that frames nanomaterials in the

ber of ongoing efforts to address these challenges.

The main themes that emerged from the workshop include

(1) the need for proactive approaches to assessing, manag-

context of their applications will help in identifying and man-

aging the risks, particularly if data are standardized and an-

ticipated, and (5) effective communications for

resources, international representation, and independence to this issue.

On day two, our keynote speaker, Phillipe Martin, Principal Administrator, European Commission Health and Consumer Protection Directorate General, shattered current myths that we don't know anything about the risks of nanomaterials, that we have to change the risk analysis paradigm, that nanotechnology is present in foods everywhere,

nanotechnology and nanomaterials must be interactive and explain the complexity and not oversimplify the messaging, while also responding to people's main concerns. This is complicated because of the breadth of potential applications and materials. Other workshop outcomes include forming new networks among multidisciplinary experts, junior and international researchers, and

international governmen-

tal, academic, and indus-

try leaders in risk analy-

sis and nanotechnology.

There is significant in-

terest in continuing

that regulation of nanomaterials is lacking, and that risk analysts will solve all of the problems. However, there was general agreement that risk analysts have an important contribution and that the workshop was valuable toward forming the new relationships that are needed to assess and manage the risks from nanotechnologies.

Participants expressed concern that while the technical and scientific

challenges to identify, characterize, and assess the unique attributes of nanomaterials can and will be addressed by current efforts, public perceptions may lack confidence in the ability to effectively manage risk.

**Garrick Louis, and Richard Williams** 

The risk community has addressed significant uncertainty for other sources of risk and generally manages risk by making conservative assumptions that are revised when data gaps are filled.

There was general agreement that proactive approaches for communicating with the public about the risks and benefits of nanomaterials and nanotechnologies is a critical component of any risk management strategy, but is not typically how things are done. Participants heard about a num-

Left to right, workshop organizers Ann Bradley, Greg Paoli, and Jo Anne these collaborations Shatkin with Linda Abbott and Andrew Maynard and organizers Margaand events. ret MacDonell, Ron White, and Lori Sheremeta. Missing: Rick Canady, The workshop was supported by the National Science Foundation, the U.S. Environmental Protection Agency, Johns Hopkins University Institute for NanoBioTechnology, NanoGram Corporation, the American Chemistry Council, ILSI Health and Environmental Sciences Institute, BASF Corporation, Evonik Corporation, the National Capital Area Chapter of SRA, the U.S. Department of

Defense Strategic Environmental Research and Development Program, the National Institute for Occupational Safety and Health, and the Women's Council for Energy and the Environment, as well as the organizations of many workshop participants. Public thanks goes to the stellar SRA organizing team and

the workshop co-sponsors. (SRA)

## **Member News**

### **Robin Cantor**

Exponent is pleased to announce Dr. Robin Ann Cantor has joined the firm as a Principal. Dr. Cantor specializes in environmental and energy economics, applied economics, statistics, risk management, and insurance claims analysis. Prior to joining Exponent, she led the Liability Estimation practice at Navigant Consulting and assisted companies and financial institu-

SRA



tions with analysis to better understand asbestos and other product liability exposures.

Other positions she has held include principal and managing director of the Environmental and Insurance Claims Practice at LECG, LLC; program director for Decision, Risk, and Management Sciences, a research program of the National Science Foundation; and senior research appointments at Oak Ridge National Laboratory. Cantor has a faculty appointment in the Graduate Part-time Program in Engineering of the Johns Hopkins University. She was the president of the Society for Risk Analysis in 2002, and from 2001 to 2003, she served as an appointed member of the Research Strategies Advisory Committee of the U.S. Environmental Protection Agency's Science Advisory Board. Her testimonial experience includes product liability estimation in bankruptcy matters and insurance disputes, statistical analysis of asbestos settlements, analysis of premises and product claims, cost contribution allocation in Superfund disputes, analysis of derailment risks, reliability of statistical models and estimation methods, and economic analysis of class certification issues. She has prepared expert reports that address economic issues in antitrust, intellectual property, employment discrimination, false advertising, regulation, and other areas of product and market analysis. Cantor has submitted analysis, testimony, and affidavits in federal arbitration, regulatory and congressional proceedings, and state and federal courts.

Cantor's publications include refereed journal articles, book chapters, expert reports, reports for federal sponsors, and a book on economic exchange under alternative institutional and resource conditions.



### Ijaz Siraj Jamall

Ijaz Jamall, PhD, Dabt, is principal scientist with Risk-Based Decisions, Inc. (www.riskbaseddecisions.com) located in Sacramento, California. He has recently published a paper titled "Is Benzene Exposure from Gasoline Carcinogenic?" (J Environ Monit, 2008; 10:176-187), which challenges the prevailing assumption that benzene exposure from

gasoline can cause acute myelogenous leukemia. He has previously published on health risks posed by environmental chemicals in developing countries. Dr. Jamall specializes in the application of risk-based decision making to obtain cost-effective cleanup and regulatory closure of contaminated sites. Beginning in January 2007, Jamall was appointed research director for the Xeroderma Pigmentosa Family Support Group, a pro bono position.

### John E. Till

John E. Till is co-editor with Helen Grogan of the book *Radiological Risk Assessment and Environmental Analysis*, published by Oxford University Press (http://www.oup.com). *Radiological Risk Assessment and Environmental Analysis* comprehensively explains methods used for estimating risk to people exposed to radioactive materials released to the environment by nuclear facilities



or in an emergency such as a nuclear terrorist event. This is the first book that merges the diverse disciplines necessary for estimating where radioactive materials go in the environment and the risk they present to people. It is not only essential to managers and scientists, but is also a teaching text. It is an update and major revision to *Radiological Assessment: A Textbook on Environmental Dose Analysis*, co-edited by John E. Till and H.R. Meyer, which was published by the U.S. Nuclear Regulatory Commission in 1983. As the first comprehensive textbook about dose assessment, it became a standard reference for scientists.

Radiological Risk Assessment and Environmental Analysis will be a critical component of the rebirth of nuclear energy now taking place, as well as an essential resource to prepare for and respond to a nuclear emergency. Till is president and founder of Risk Assessment Corporation (RAC), based in Neeses, South Carolina.

### Terje Aven



Professor Terje Aven has recently published his book *Risk Analysis: Assessing Uncertainties Beyond Expected Values and Probabilities.* The book provides a guide to performing risk analysis with minimal prior knowledge required. It adopts a broad perspective on risk, with focus on predictions and highlighting uncertainties beyond expected values and probabilities, al-

lowing a more flexible approach than traditional statistical analysis. It emphasizes the planning and use of risk analyses, rather than just the risk analysis methods and techniques. The book features many case studies from a variety of applications and practical industry problems, including areas such as security, business and economy, transport, oil and gas, and ICT (Information and Communication Technology). The book is available from Wiley (http://eu.wiley.com/WileyCDA/WileyTitle/ productCd-0470517360.html).

### Victor Ricciardi

Professor Victor Ricciardi had two chapters published in the *Handbook of Finance* in August 2008. The titles of his book chapters are "The Psychology of Risk: The Behavioral Finance Perspective" and "Risk: Traditional Finance versus Behavioral Finance." John Wiley & Sons is the publisher of this comprehensive three-volume set. Dr. Frank J. Fabozzi, Yale University, is the editor of this book series that covers various topics and developments in finance and investing.

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**Advertisements** 



### Health and Exposure Scientific Professionals

Our company is seeking **health and exposure scientific professionals** to perform **risk analyses** for chemicals in the workplace and the general human environment at its Bethesda, Maryland, headquarters.

We are seeking senior health scientists to provide technical experience and leadership. We seek individuals—PhD, MD, or DSc preferably in toxicological sciences with 10 or more years of experience and also MS or MPH with at least five years of experience—to be instrumental in continuing to build on our organization's strong history in the development of unique and compelling risk assessment documentation and risk science methods.

Key job duties will include:

- Conduct detailed critical analyses and synthesis of toxicology and human data and develop objective and balanced integrated hazard assessments and dose-response analyses.
- Develop and implement strategic plans for marketing and business development, prepare technical and cost proposals.
- Apply risk analysis approaches to complex regulatory situations.

The Sapphire Group, Inc., is an independent, for-profit corporation with a mission to support protection of public health via human health risk assessments. Visit our Web site at www.thesapphiregroup.com. Send résumés in confidence to admin@thesapphiregroup.com.

### DIRECTOR

University of Michigan Risk Science Center PROFESSOR

**Charles and Rita Gelman Professor in Risk Sciences** 

The University of Michigan Risk Science Center (UMRSC) is seeking a Director with exceptional leadership skills and a commitment to scientific excellence (www.umriskcenter.org). The Director will continue to build the Center's strong national and international repute in the risk sciences and orchestrate the next phase of growth. The UMRSC Director will also hold the Charles and Rita Gelman endowed professorship within the University of Michigan School of Public Health (UM SPH).

Established scholars with potential to develop a vibrant research program in the Risk Sciences and Risk Communication areas are encouraged to apply. The selected candidate will be expected to participate in instructional activities as well as:

- provide intellectual and scholarly leadership as Director of the UMRSC,
- perform basic and/or applied research in the risk sciences,
- build teams with the ability to tackle a variety of environmental health risk research problems,
- lead the recruitment of two additional junior scientists,
- further develop educational programs,
- establish communication strategies for reaching various audiences, and
- actively participate in development of research funding.

Qualifications include a doctoral degree and an outstanding record of research accomplishments, as evidenced by scholarly contributions to the literature. Letters of application, including curriculum vitae and three references, are requested. All applications will be treated in a confidential manner and a pdf file should be sent to umrscsearch@umich.edu.

The University of Michigan is an equal opportunity/affirmative action employer.

### **RISK** newsletter Advertising Policy

Books, software, courses, and events may be advertised in the Society for Risk Analysis (SRA) RISK *newslet*ter at a cost of \$250 for up to 150 words. There is a charge of \$100 for each additional 50 words.

Employment opportunity ads (up to 200 words) are placed free of charge in the RISK *newsletter*. Members of SRA may place, at no charge, an advertisement seeking employment for themselves as a benefit of SRA membership.

Camera-ready ads (greyscale) for the RISK *newsletter* are accepted at a cost of \$250 for a 3.25-inch-wide by 3-inch-high box. The height of a camera-ready ad may be increased beyond 3 inches at a cost of \$100 per inch.

The RISK *newsletter* is published four times a year. Submit advertisements, with billing instructions, by 30 December for the First Quarter issue (published early February), 30 March for the Second Quarter issue (early May), 30 June for the Third Quarter issue (early August), and 30 September for the Fourth Quarter issue (early November). Send to Mary Walchuk, Managing Editor, RISK *newsletter*, 115 Westwood Dr., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; email: editormw@hickorytech.net.



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Genevieve S. Roessler, *Editor*, gnrsslr@frontiernet.net Mary A. Walchuk, *Managing Editor*, editormw@hickorytech.net Sharon R. Hebl, *Editorial Associate* 

### Society Officers:

Jonathan Wiener, *President*, wiener@law.duke.edu Alison Cullen, *President-elect*, alison@u.washington.edu Mitchell Small, *Secretary*, ms35@andrew.cmu.edu Louis Anthony (Tony) Cox, Jr., *Treasurer*,

tcoxdenver@aol.com Jack Fowle, *Treasurer-elect*, fowle.jack@epa.gov Kimberly Thompson, *Past President*, kimt@hsph.harvard.edu

### Members of SRA Council:

Luis Abdon Cifuentes, lac@ing.puc.cl Elaine M. Faustman, faustman@u.washington.edu Sharon Friedman, smf6@lehigh.edu David Hassenzahl, david.hassenzahl@unlv.edu James Lambert, lambert@virginia.edu Garrick Louis, louis@virginia.edu Kara Morgan, kara.morgan@fda.hhs.gov Richard Reiss, rreiss@exponent.com Olivier Salvi, olivier.salvi@ineris.fr

*Secretariat:* Richard J. Burk Jr., Executive Secretary, Society for Risk Analysis, 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101; phone: 703-790-1745; fax: 703-790-2672; email: SRA@BurkInc.com

Communications Chair: Richard Reiss, rreiss@exponent.com

*Newsletter Contributions:* Send to Mary Walchuk, Managing Editor, RISK *newsletter*, 115 Westwood Dr., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; email: editormw@hickorytech.net

Address Changes: Send to SRA@BurkInc.com

SRA Web site: www.sra.org

SOCIETY FOR RISK ANALYSIS 1313 Dolley Madison Blvd., Suite 402 McLean, VA 22101

### Deadline for RISK newsletter Submissions

Send information for the **First Quarter 2009** SRA RISK *newsletter*, which will be mailed to members early February, to Mary Walchuk, RISK *newsletter* Managing Editor (115 Westwood Dr., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; email: editormw@hickorytech.net) no later than **20 December 2008**.



The Society for Risk Analysis (SRA) is an interdisciplinary professional society devoted to risk assessment, risk management, and risk communication.

SRA was founded in 1981 by a group of individuals representing many different dis-

ciplines who recognized the need for an interdisciplinary society, with international scope, to address emerging issues in risk analysis, management, and policy. Through its meetings and publications, it fosters a dialogue on health, ecological, and engineering risks and natural hazards, and their socioeconomic dimensions. SRA is committed to research and education in risk-related fields and to the recruitment of students into those fields. It is governed by bylaws and is directed by a 15-member elected Council.

The Society has helped develop the field of risk analysis and has improved its credibility and viability as well.

Members of SRA include professionals from a wide range of institutions, including federal, state, and local governments, small and large industries, private and public academic institutions, not-for-profit organizations, law firms, and consulting groups. Those professionals include statisticians, engineers, safety officers, policy analysts, economists, lawyers, environmental and occupational health scientists, natural and physical scientists, environmental scientists, public administrators, and social, behavioral, and decision scientists.

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