

## Speakers and Public Participation Resources



### **Peter S. Adler**

Peter S. Adler, Ph.D. is President of The Keystone Center, which applies consensus-building and cutting-edge scientific information to energy, environmental, and health-related policy problems. Adler's specialty is multi-party negotiation and problem solving. He has worked extensively on water management and resource planning problems and mediates, writes, trains, and teaches in diverse areas of conflict management. He has worked on cases ranging from the siting of a 25-megawatt geothermal energy production facility to the resolution of construction and product liability claims involving a multi-million dollar stadium. He has extensive experience in land planning issues, water problems, marine and coastal affairs, and strategic resource management.

Prior to his appointment at Keystone, Adler held executive positions with the Hawaii Justice Foundation, the Hawaii Supreme Court's Center for ADR, and the Neighborhood Justice Center. He has served as a Peace Corps Volunteer in India, an instructor and Associate Director of the Hawaii Bound School, and President of the Society of Professionals in Dispute Resolution. He has been awarded the Roberston-Cunninghame Scholar in Residence Fellowship at the University of New England, New South Wales, Australia, a Senior Fellowship at the Western Justice Center, and was a consultant to the U.S. Institute for Environmental Conflict Resolution.

Adler has written extensively in the field of mediation and conflict resolution. He is the co-author of *Managing Scientific & Technical Information in Environmental Cases* (1999) and *Building Trust: 20 Things You Can Do to Help Environmental Stakeholder Groups Talk More Effectively About Science, Culture, Professional Knowledge, and Community Wisdom* (National Policy Consensus Center, 2002), the author of *Beyond Paradise and Oxtail Soup* (Ox Bow Press, 1993 and 2000) and numerous other articles and monographs



### **Carl A. Batt**

Carl A. Batt joined the faculty in the College of Agriculture and Life Sciences at Cornell University in 1985. He is the Liberty Hyde Bailey Professor in the Department of Food Science. Prof. Batt also serves Director of the *Cornell University/Ludwig Institute for Cancer Research Partnership*, co-Founder of Main Street Science and the founder of Nanooze, a on-line science magazine for kids. He is also the co-Founder and former co-Director of the *Nanobiotechnology Center* (NBTC) a National Science Foundation supported Science and Technology Center.

Prof. Batt received his Ph.D. from Rutgers University in Food Science. He went on to do postdoctoral work at the Massachusetts Institute of Technology. Throughout his 20 years at Cornell, Prof. Batt has worked at the interface between a number of disciplines in the physical and life

## **Carl A. Batt (continued)**

sciences seeking to explore the development and application of novel technologies to applied science problems. Partnering with the Ludwig Institute for Cancer Research, Prof. Batt has helped to establish a Good Manufacturing Practices Bioproduction facility in Stocking Hall. This facility, the only one at an academic institution in the United States, is a state-of-the-art suite of clean rooms which is producing therapeutic agents for Phase I clinical trials. He has published over 175 peer-reviewed articles, book chapters and reviews. In addition, from 1987-2000 he served as editor for Food Microbiology, a peer-reviewed journal and editor for the Encyclopedia of Food Microbiology that was published in 2000. In 1998, Prof. Batt cofounded a small biotechnology research and development company, Agave BioSystems, located in Ithaca, NY and continues to serve as its Scientific Director. In 2004, he founded Illuminaria, another technology start-up to further the development of genetics-based instrumentation. From 1999-2002, Prof. Batt was the President of the Board of Directors of the Ithaca Montessori School, an independent progressive community-based school. In 2004, he cofounded Main Street Science, a not-for-profit organization to develop hands on science learning activities to engage the minds of students. Prof. Batt has been a champion of bringing science to the general public especially young students and making difficult concepts approachable. As such he was part of the team that developed two traveling museum exhibitions that share the excitement of emerging technology with the general public. The first exhibition, 'It's a Nanoworld' is currently on tour in the United States and has made stops including a six-month stay at Epcot in Disneyworld. The second exhibition, 'Too Small to See' is under development and will tour the United States starting in the Fall, 2006.



## **Larry Bell**

Larry Bell has worked in the Education and Exhibit Departments at the Museum of Science in Boston since 1971 where he has served as Education Associate, Director of Exhibit Research and Planning, Head of Exhibits, Associate Director, Vice President for Exhibits, and Sr. Vice President for Research, Development and Production. He was instrumental in the formation of the Science Museum Exhibit Collaborative, a collaboration of eight science centers nationwide. Through a series of National Science Foundation grants from 1986 to the present, he developed a new model for science center exhibits employing constructivist learning experiences to provide visitors with practice in scientific thinking skills. Currently he is engaged in the early stages of a strategic plan for informal technology education at the Museum and heads the Nanoscale Informal Science Education Network, a major NSF initiative to raise public awareness, understanding, and engagement with nanoscale science, engineering, and technology. He received a B.S. in Physics and an M.S. in Earth and Planetary Science from M.I.T. in 1971.

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# Public Participation in Nanotechnology Workshop



## **Rosalyn W. Berne, PhD**

Rosalyn W. Berne is an ethicist serving on the faculty of the University of Virginia, School of Engineering and Applied Sciences. There she teaches courses in *Engineering Ethics, Religion & Technology, and Engineering and Society*. Prof. Berne was awarded a National Science Foundation Career award which supports her research on the beliefs and perspectives of individual nanotechnology research scientists and engineers. Her book on the subject, *Nanotalk: Conversations with Scientists and Engineers about Ethics, Meaning, and Belief in the Development of Nanotechnology*, was published in 2005 by Lawrence Erlbaum Press.

Professor Berne has just launched the *Nano Science Fiction Writing Project*, which engages nano research scientists, engineers and their students in workshops for writing fictional accounts of scenarios about living in the nanotechnology dominant future. These stories are being assembled, studied, and prepared for use in both university teaching, and for public reflection and discourse about the emerging societal and ethical implications of nanotechnology.



## **Thomas C. Beierle**

Thomas C. Beierle is an associate with the firm Ross & Associates Environmental Consulting, where he works on information technology and environmental management, policy innovation, and stakeholder processes. Prior to joining Ross & Associates in 2004, Mr. Beierle was a research fellow at the environmental policy think tank Resources for the Future (RFF) in Washington, DC, which he joined in 1997. Mr. Beierle is the author of the book *Democracy in Practice: Public Participation in Environmental Decisions*. His articles on public participation have appeared in the *Journal of Policy Analysis and Management, Policy Studies Review, Environment and Planning, Society and Natural Resources, Environment, and the Environmental Law Reporter*. Mr. Beierle has an M.P.A. degree from the Woodrow Wilson School of Public and International Affairs at Princeton University and a B.A. from Yale University.



## **Vence L. Bonham, J.D.**

Vence L. Bonham, J.D. Senior Advisor to the Director on Societal Implications of Genomics and Chief of the Education and Community Involvement Branch at the National Human Genome Research Institute (NHGRI), National Institutes of Health, in Bethesda, Maryland. In his role as Senior Advisor to the Director, Mr. Bonham co-chairs the NHGRI Working Group on Race, Ethnicity, and Genetics that provides the Institute and NIH guidance as genomics research uncovers the relationships between genomics, race and ethnicity.

Mr. Bonham also heads the Education and Community Involvement Branch, which leads NHGRI's public education and community involvement and outreach initiatives. He is responsible for leading public education initiatives and structuring how the Institute reaches out and engages various types of communities, such as those that are underserved, in biomedical research participation.

## **Vence L. Bonham, J.D. (continued)**

Mr. Bonham is an Associate Investigator in the Social and Behavioral Research Branch of the Division of Intramural Research at NHGRI. Mr. Bonham's research focuses on, ethical, social, and policy issues related to the impact of genomics in medical and non-medical settings. His research includes the study of health professionals and the public's understanding of race, ethnicity, and genetics and the role of race and genetics in medical decision-making.

Prior to his appointment at the National Institutes of Health, Mr. Bonham was an associate professor at Michigan State University. Mr. Bonham was an investigator on an NIH funded public deliberation study Communities of Color Genetics Policy Project, and was Principal Investigator on the community based participatory research project Michigan Demonstration GENE Project (Genetics Education Needs Evaluation) which was funded by a cooperative agreement between the Health Resources and Services Administration and the March of Dimes.



## **Leslie D. Bourquin, Ph.D.**

Dr. Bourquin is an Associate Professor of Nutrition and Extension Food Safety Specialist in the Department of Food Science and Human Nutrition at Michigan State University. His work focuses on risk communication and education on food safety issues. In this capacity, he provides consultation, education and outreach on food safety practices, good agricultural practices and HACCP (Hazard Analysis and Critical Control Points) for food producers and processors, foodservice workers, consumers, government agencies and the media. He has developed training curricula and presented short-courses on food safety, HACCP, and the Codex Alimentarius throughout the United States and internationally (Bulgaria, Romania, India). An important focus of his work is to improve public understanding of complex food issues such as biotechnology, food irradiation and food-borne illness. Dr. Bourquin's applied research program currently focuses on the impact of federal food safety regulations (specifically the 2001 FDA Juice HACCP regulation), barriers to their acceptance and effective implementation by the food industry, and the potential impacts of these new laws and regulations on public health.



## **David H. Guston**

David H. Guston is Professor of Political Science and associate director of the Consortium for Science, Policy and Outcomes at Arizona State University. He is also director of the Center for Nanotechnology in Society (CNS-ASU), an NSF-designated Nano-scale Science and Engineering Center. In October, 2005, CNS-ASU began the first year of its 5-year, \$6.2 M grant from NSF to explore the societal implications of nanotechnologies.

Professor Guston's major book, *Between Politics and Science: Assuring the Integrity and Productivity of Research* (Cambridge U. Press, 2000), won the 2002 Don K. Price Prize from the American Political Science Association for best book in science and technology policy. He has also co-edited or co-authored three other books and published numerous scholarly articles and book chapters.

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## **David H. Guston (continued)**

Professor Guston is the North American editor of the peer-reviewed journal *Science and Public Policy*, and he is co-vice-chair of the 2006 Gordon Research Conference on Science and Technology Policy.

In 2002, he was elected a fellow of the American Association for the Advancement of Science (AAAS), and he is the immediate past chair of the AAAS Section on Societal Impacts of Science and Engineering.

Professor Guston holds a B.A. from Yale and a PhD from MIT, and he performed post-doctoral training at the Belfer Center for Science and International Affairs at Harvard University's Kennedy School of Government.



## **Sandy Heierbacher**

Sandy Heierbacher is the Director of the nearly 600-member National Coalition for Dialogue & Deliberation (NCDD) and its biennial national conferences. NCDD's members, collectively, regularly engage and mobilize millions of people across the globe around today's critical issues, and NCDD's resource-rich website, at [www.thataway.org](http://www.thataway.org), is a popular hub for dialogue and deliberation leaders and those looking for dialogue and deliberation services. In addition to her work with NCDD, Sandy has consulted for such organizations as the Corporation for National Service, the Centers for Disease Control and Prevention, and the Kettering Foundation in the areas of intergroup dialogue, public participation and deliberative democracy. Sandy has an M.A. from the School for International Training.



## **Barbara Herr Harthorn**

Barbara Herr Harthorn, Principal Investigator and Co-Director of the Nanoscale Science and Engineering Center: Center for Nanotechnology in Society (CNS) at University of California at Santa Barbara, is also Associate Director of the Institute for Social, Behavioral, and Economic Research (ISBER), and a Research Anthropologist. Her research examines the social production of health inequality, and in particular looks at the intersections of gender, ethnicity/race, and transnational migration in health and health risk perception. She was a member of the Executive Committee of the National Science Foundation Center for Spatially Integrated Social Science and leads an international network on health risk perception and spatial analysis. She has conducted research in East Africa, Polynesia, Melanesia, and urban and rural California. She is author (with Laury Oaks) of *Risk, Culture, and Health Inequality: Shifting Perceptions of Danger and Blame (2003)* and has published in many social science journals. She has a doctorate in anthropology from UCLA and a bachelor's degree in anthropology from Bryn Mawr College; she also completed postdoctoral research in social psychology at UCSB. For more information see: [cns.ucsb.edu](http://cns.ucsb.edu).



## **Kathy Hudson**

Dr. Kathy Hudson is director of the Genetics and Public Policy Center and Associate Professor in the Berman Bioethics Institute, Institute of Genetic Medicine, and the Department of Pediatrics at The Johns Hopkins University. Hudson founded the Center in 2002 with support from The Pew Charitable Trusts to fill an important niche in the science policy landscape by focusing exclusively on issues raised by advances in human genetics. Hudson leads the Center's efforts to monitor and improve the quality of genetic testing, evaluate the legal and regulatory landscape, educate and engage the public and policymakers, and assess the public's attitudes.

To inform genetic policy decisions, the Center has published a series of analytical reports on the scientific, legal, ethical, and policy issues raised by human genetic technologies. The Center also conducts extensive research on public attitudes about emerging genetic technologies and sponsors an array of activities and events to facilitate ongoing discussions about these topics.

Hudson serves on the boards of the Health Privacy Project, the Guttmacher Institute, the Personalized Medicine Coalition, and PXE International. She is a member of the International Task Force on Human Embryonic Stem Cell Research Guidelines of the International Society for Stem Cell Research and Chair of the Social Issues Committee for the American Society of Human Genetics.

Before founding the Center, Hudson was the Assistant Director of the National Human Genome Research Institute (NHGRI) where she directed policy and public affairs for the Human Genome Project. Previously, Hudson served in the Department of Health and Human Services and on Capitol Hill. She holds a Ph.D. in Molecular Biology from the University of California at Berkeley, an M.S. in Microbiology from the University of Chicago and a B.A. in Biology from Carleton College.



## **Carolyn J. Lukensmeyer**

Dr. Carolyn J. Lukensmeyer is the president and founder of AmericaSpeaks. From 1997 to 1999, Dr. Lukensmeyer was the executive director of Americans Discuss Social Security (ADSS), a 12-million-dollar project of The Pew Charitable Trusts whose mission was to engage Americans from all walks of life in a nation-wide discussion about the future of Social Security, and to provide a framework within which citizens can help policymakers resolve this important issue. Prior to founding AmericaSpeaks, Lukensmeyer served as Consultant to the White House Office of the Chief of Staff, and served as the Deputy Project Director of Management of the National Performance Review (NPR), Vice President Al Gore's reinventing government task force.

From 1986 to 1991, Lukensmeyer served as Chief of Staff to Governor Richard F. Celeste of Ohio. She was both the first woman to serve as Ohio's Chief of Staff and, at the time of her appointment, the only Chief of Staff recruited from the professional management field. Dr. Lukensmeyer has run an organizational consulting firm, Lukensmeyer Associates, Inc., since its founding in Cleveland in 1974. Lukensmeyer has a doctorate in Organizational Behavior from Case Western Reserve University.

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# Public Participation in Nanotechnology Workshop



## **Phil Macnaghten**

Phil Macnaghten teaches in the Sociology Department at Lancaster University. Beginning June 1st 2006, he will be Professor of Geography and Founding Director of IHRR, the Institute for Hazard and Risk Research, at Durham University. From a background in social psychology, his research focuses on the cultural dimensions of environmental and innovation policy and their intersection with everyday practice. He has published widely on the social science of technology and the environment and is author, with Matthew Kearnes and James Wilsdon, of *'Governing at the Nanoscale: people, politics and emerging technologies.'* He advises the UK Economic and Social Research Board on Nanotechnology and Society matters, is a founding member of the International Nanotechnology and Society Network, a member of the UK Nanotechnologies Standardization Committee NTI/1, and a research partner on the Demos Sciencewise project 'The Nanodialogues: Four experiments in upstream engagement'. He works closely with the UK think tank Demos on research on the governance of emerging technologies.



## **Cynthia Needham**

Cynthia Needham, Ph.D., is the Principle Investigator and Project Director for "Nanotechnology: The Convergence of Science and Society," an NSF-funded multi-faceted, multi-partner project addressing the social, ethical, environmental, legal, and policy issues of this emerging field. She will also serve as Content Producer for the Fred Friendly Seminars component of the project, a 3-part series for public television, *Small Matters* (wt). With more than 30 years of prior experience as a scientist, Needham co-founded ICAN Productions in 2000 in an effort to help stimulate a better-informed and balanced public understanding of the impacts of science and new technologies on our lives. She was the Principle Investigator and Project Director for *Intimate Strangers: Unseen Life on Earth*, a multi-million dollar project exploring the role of microbes on our lives. The project included a 4-hour documentary film series by the same name, for which Needham served as science editor and content producer. Needham has been the lead author on two books for the general public, *Intimate Strangers: Unseen Life on Earth* (2000) and *Global Disease Eradication: Race for the Last Child* (2003).



# Public Participation in Nanotechnology Workshop



## David Ropeik

David Ropeik is Instructor in risk communication at the Harvard School of Public Health, and consults in the perception and communication of risk to business, government, consumer groups and other organizations.

Mr. Ropeik is co-author of "RISK, A Practical Guide for Deciding What's Really Safe and What's Really Dangerous in the World Around You" (Houghton Mifflin, 2002). He is a commentator on risk issues for National Public Radio's Morning Edition program. He has written OpEd pieces and essays on risk for *The New York Times*, *The Washington Post*, *USA Today*, *The Los Angeles Times*, *Newsday*, *Parade Magazine*, *The Sacramento Bee*, *The Boston Globe*, *Congressional Quarterly*, and other publications. He has been cited as an expert on risk perception in *The Economist*, *The New York Times*, *The Washington Post*, *The Los Angeles Times*, *The San Francisco Chronicle*, *The San Jose Mercury News*, *The Boston Globe*, *The Providence Journal*, *The Baltimore Sun*, *The St. Louis Post Dispatch*, *The Oregonian*, *The Seattle Post Intelligencer*, dozens of magazines and news websites worldwide, on National Public Radio, ABC TV-Nightline, Fox News Network, CNN, CNBC, BBC, Canada's CBC, as well as dozens of regional television and radio stations. He has co-authored 10 articles published in scholarly journals, including an essay on risk communication published in 2002 in the policy journal *Health Affairs*. He co-authored an essay on risk perception and risk communication with Paul Slovic for the 2003 issue of *Global Agenda*, the magazine of the World Economic Forum.

He has taught risk communication to many organizations worldwide including government agencies, universities, non-profits and private industry.

Prior to joining Harvard, Mr. Ropeik was a television reporter for WCVB-TV, Channel 5, in Boston for 22 years. He specialized in reporting on environment and science issues. He twice won the prestigious DuPont-Columbia Award, often cited as the television equivalent of the Pulitzer Prize. He also won a national Gabriel Award, National Headliners Award, and seven regional EMMY awards. He was a member of the Board of Directors of the Society of Environmental Journalists for 10 years. He was a Knight Science Journalism Fellow at MIT, 1994-95, and a National Tropical Botanical Garden Fellow, 1999.

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# Public Participation in Nanotechnology Workshop



## **Douglas J. Sarno**

Mr. Sarno is a principal with The Perspectives Group in Alexandria, Virginia. He has over twenty years experience as a facilitator, trainer, and policy analyst helping diverse groups to make better decisions and to resolve problems through collaboration. Mr. Sarno has facilitated well over a thousand meetings and developed dozens of programs and publications to assist organizations to better engage the public. Mr. Sarno has assisted many U.S. federal agencies and non-profit groups in developing leading edge policies and guidance for decision-making, public participation, planning, and long-term stewardship, as well as agencies in The Republic of Georgia, Thailand, Mexico, South Africa, and Vietnam.

As a trainer, Mr. Sarno has designed and teaches courses for the U.S. Fish and Wildlife Agency, the Office of Personnel Management, the Duke University Environmental Leadership Program, and numerous other groups. He was an original designer and now a Master Trainer for the International Association of Public Participation Certificate Training in Public Participation which he has taught to thousands of students throughout the world.

Mr. Sarno serves on a wide variety of advisory panels for numerous federal agencies, non-profit groups and the National Academies of Sciences. He served five years as the Executive Director of the International Association for Public Participation and is the President of the non-profit organization Shared Vision.

He currently serves as a public participation advisor to the International Linear Collider project, USAID environmental efforts throughout Asia, the National Nanotechnology Coordination Office, and numerous other government and non-profit agencies. Mr. Sarno holds a B.S. in Civil Engineering and an M.B.A.



## **Dietram A. Scheufele**

Dietram A. Scheufele is a professor with a joint appointment in the Department of Life Sciences Communication and the School of Journalism & Mass Communication at the University of Wisconsin, Madison. He is also a faculty affiliate of the Robert and Jean Holtz Center for Science and Technology Studies and the Initiative on Nanotechnology and Society. Prior to joining UW he was a tenured Associate Professor at Cornell University.

Scheufele's current research is concerned with the factors shaping public attitudes toward science and technology. This includes a number of studies tapping the public opinion dynamics and media coverage surrounding nanotechnology, stem cell research, GMOs, and related issues. This work has been supported by grants from the National Science Foundation, the U.S. Department of Agriculture, the Worldwide University Network, and other funding agencies. He is currently co-leader of the Public Opinion and Values research team of the Center for Nanotechnology in Society at Arizona State University.



# Public Participation in Nanotechnology Workshop



## **Rob Semper**

Rob Semper is Executive Associate Director of the Exploratorium in San Francisco and is responsible for leading the institution's work in developing programs of teaching and learning using exhibits, media and Internet resources. He is head of the Exploratorium's Center for Learning and Teaching which contains the institutions programs in teacher professional development, youth programming, publishing, media and Internet development. Dr. Semper is the principle investigator on numerous science education, media and research projects including leading the National Science Foundation sponsored Center for Informal Learning and Schools, a research collaboration between the Exploratorium, U.C. Santa Cruz and King's College, London which studies the relationship between museums and formal education. He is also Co-PI on the NSF funded Nanoscale Informal Science Education Network, a national network of science centers designed to foster engagement of the public with the nanotechnology field. He leads numerous research and development projects in new media including wireless networks, handheld computing and advanced Internet applications.

Over the past ten years Dr. Semper has guided the development of the award winning Exploratorium Website that has explored the role of museums in the online world including the development of on-line fieldtrips to locations of scientific research. Before this, Dr. Semper was a Schumann fellow at the Harvard Graduate School of Education and director of the creative collaboration between Apple Computer and Lucasfilm Ltd. formed to develop interactive multimedia education projects. Previous to this since joining the Exploratorium in 1977, he has lead numerous exhibit development, teacher enhancement and media development projects focused on science education for the public, teachers and students. Dr. Semper was elected to be a 2006 American Association for the Advancement of Science (AAAS) Fellow and was the recipient of the 2006 NSTA's Faraday Award for Science Communication, the 1994 NSTA's Informal Educator of the Year award and the 2000 Association of Science Technology Center's Award for Innovation for the Exploratorium's leadership in developing on-line media. He has served on numerous advisory boards including the George Lucas Educational Foundation National Advisory Board.



## **Chris Toumey**

Chris Toumey is a cultural anthropologist (Ph.D. 1987 from UNC – Chapel Hill) who works in the anthropology of science and in medical anthropology. His principal interest is the problem of cultural meanings in public scientific controversies, which he has explored in studies of creationism/evolution, fluoridation, cold fusion, AIDS, and other topics. He is the author of approximately fifty articles and two books: *God's Own Scientists* (1994) and *Conjuring Science* (1996).

For the past three years, he has been part of the interdisciplinary research team at the University of South Carolina that is studying societal interactions with nanotechnology. His publications include a challenge to the story that nanotechnology began with Richard Feynman's 1959 talk, and, in an upcoming article, he reviews the various theories and experiments that attempt to enhance nonexperts' roles nanotechnology policy.

**Chris Toumey (continued)**

In 2004 he organized the South Carolina Citizens' School of Nanotechnology, an innovative outreach program which puts experts and nonexperts in dialogue with each other. In Fall 2004 became Centenary Research Associate Professor of Anthropology at USC.