

***Scientific Uncertainty and Professional Ethics:  
Getting from Strong Public Science to Sound Public Policy  
December 5-6, 2016***

Carnegie Endowment for International Peace Conference Center

**Steering Committee**

**Mona Behl** is Associate Director and Public Service Faculty at Georgia Sea Grant at the University of Georgia. She is a multicultural and interdisciplinary scientist with over a decade of experience in various aspects of science including research, education, communication, outreach, policy, and administration. Her research interests include air-sea interaction, large-scale ocean circulation, climate change adaptation, science policy, communication, and ethics. Before joining Georgia Sea Grant, she served as Research Coordinator and Climate Science Specialist at Texas Sea Grant. Previously, she was a visiting fellow with the American Meteorological Society Policy Program in Washington, D.C. and an adjunct professor at American Public University. Behl secured her Ph.D. in Physical Oceanography from Florida State University, and her bachelor and master degrees in Physics (Honors) from the Center of Advanced Studies in Physics at Panjab University in India.

**Leslie Carothers** is a Visiting Scholar at the Environmental Law Institute. She began her career at the U.S. EPA in Washington and Boston, where she played major roles in formulating and defending EPA's lead in gasoline regulations and in administering and enforcing agency programs and rules in the New England Region. She was Commissioner of Environment for Connecticut from 1987 – 1991, focusing on Long Island Sound cleanup, implementing mandatory recycling, and upgrading enforcement programs. In the business sector, she was Vice President of Environment, Health and Safety (EHS) at United Technologies Corporation from 1991-2002 where she was responsible for setting corporate-wide goals and technical standards and implementing common EHS management systems for six operating companies and over 200 factories worldwide. As President of the Environmental Law Institute from 2003-2011, she increased attention to emerging issues such as water supply, oceans governance, and nanotechnology risks and participated in the design and presentation of numerous ELI workshops and education programs. She is a graduate of Smith College (B.A. *summa cum laude*), Harvard Law School, (LLB) and George Washington University Law School (LLM with highest honors) and serves on the Board of Directors of the Center for Climate and Energy Solutions.

**Jim Hilbert** is an Associate Professor at the Mitchell Hamline School of Law and Senior Fellow at the Dispute Resolution Institute. He is also the Co-Director of the Expert Witness Training Academy. He is an experienced civil rights attorney, negotiator, public speaker and instructor, combining all four disciplines in his approach to using principled negotiation as a tool for solving client problems and promoting social justice. He has served as a consultant and advisor to community organizations, civil rights groups, government agencies, and Fortune 500 companies throughout the world. He is a former Legal Fellow at the Institute on Race and Poverty at the University of Minnesota. He holds a B.A. in Sociology and Anthropology from Carleton College and a J.D. from the University of Minnesota Law School.

**Jay Odenbaugh** is an Associate Professor of Philosophy in the Department of Philosophy at Lewis & Clark College and Fulbright Visiting Research Chair in the Department of Philosophy at the University of Calgary. His focus areas are philosophy and history of science, as well as aesthetics and ethics. Particularly, he investigates human emotions and their expression in the context of psychology, behavioral ecology and evolutionary biology. Currently, he is researching moral psychology and climate skepticism to offer ways to de-politicize this and other environmental issues. After earning his B.A. in Philosophy at Belmont University, he secured a Ph.D. in Philosophy at the University of Calgary.

**Dave Poulson** is the Senior Associate Director of the Knight Center for Environmental Journalism at Michigan State University. He teaches environmental, investigative, computer-assisted, science and public affairs reporting to graduate and undergraduate students, and organizes workshops for professional journalists. Before teaching at Michigan State, Poulson was a reporter and editor for more than 20 years, mostly reporting on the environment. He is the founder and the editor of GreatLakesEcho.org, a now 7-year old nonprofit regional environmental news service. His research interests include non-traditional methods of gathering and delivering news, reader engagement, climate change communications and nonprofit journalism. Poulson received his B.A. in Journalism from Michigan State University.

**Bud Ward** is Founding Editor at *Yale Climate Connections*, where he has served as writer since 2007. In 2009, he was named Climate Change Communicator of the Year by the George Mason University's Center for Climate Change Communications. His rich career in environmental journalism started as Managing Editor of The Bureau of National Affairs' *Environment Reporter*. Then, after serving as Assistant Director of the U.S. Congress's National Commission on Air Quality, he founded the ELI policy magazine *The Environmental Forum*, and he established the Environmental Health Center and *The Environment Writer*, a newsletter for reporters and editors covering environmental issues. He is a co-founder of the Society of Environmental Journalists and has founded and managed the Central European Environmental Journalism Program. In 2010, he was elected a Fellow of the American Association for the Advancement of Science, AAAS. He is a member of the American Geophysical Union and the American Meteorological Society. He earned bachelors and masters degrees in journalism and in mass communications from Penn State University.

## Participants

**Steve Armstrong** is an attorney specializing in food law. For the last ten years, he served as the food lawyer for the Campbell Soup Company, where he counseled Campbell's businesses around the world on food safety, labeling compliance and food policy. Mr. Armstrong came to Campbell in January 2007 from Energizer's Schick-Wilkinson Sword Division, where he served as Senior Marketing Counsel. He has had over 20 years of experience in advising companies on marketing and regulatory matters, having previously worked as an Assistant General Counsel at Unilever United States, and Division Counsel at Colgate-Palmolive Company. Before beginning his in-house practice, Mr. Armstrong advised clients on commercial litigation and regulatory matters at the law firm of Townley & Updike in New York City. Prior to entering law school, he had over twelve years' experience as a journalist, including a five-year stint as an editor at The Miami Herald. Mr. Armstrong received his Bachelor's degree in history and literature from Harvard College and earned his JD from Columbia University.

**Jay Austin** is a Senior Attorney at the Environmental Law Institute and Editor-in-Chief of the *Environmental Law Reporter*. He directs the Institute's Program on the Constitution, Courts, and Legislation, an initiative focusing on the intersection of U.S. constitutional and environmental law and recent trends in the federal courts. In that role, he produces scholarly research and commentary on environmental litigation, including climate litigation; key areas of constitutional law, including the Commerce Clause, Fifth Amendment takings, and Article III standing; and on proposals to amend major federal laws like the National Environmental Policy Act and Endangered Species Act. He also helps direct ELI's Ocean Program, and has extensive experience with the Institute's international programs. Based in Portland, Oregon, he maintains specialties in water pollution law, coastal and ocean law, constitutional law, environmental impact assessment, and procedures for public participation in environmental decision-making. He holds a B.A. in political philosophy from James Madison College at Michigan State University, and a J.D. from the University of Virginia School of Law.

**Helena Bottemiller-Evich** is a senior food and agriculture reporter for *POLITICO Pro*. Before joining *POLITICO*, Helena spent four years reporting on food politics and policy at *Food Safety News*, where she covered Congress, the Food and Drug Administration and the U.S. Department of Agriculture. Helena's work has also appeared in the *Columbia Journalism Review* and on NBC News. Her reporting has taken her to the Louisiana coast during the Gulf oil spill, Arizona lettuce fields, North Carolina hog farms and the occasional presidential turkey pardoning.

**Dan Charles** is NPR's food and agriculture correspondent. Primarily responsible for covering farming and the food industry, Charles focuses on the stories of culture, business, and the science behind what arrives on your dinner plate. From 1993 to 1999, Charles was a technology correspondent at NPR, and returned in 2011. During his time away from NPR, Charles was an independent writer and radio producer and occasionally filled in at NPR on the Science and National desks, and at *Weekend Edition*. Over the course of his career Charles has reported on software engineers in India, fertilizer use in China, dengue fever in Peru, alternative medicine in Germany, and efforts to turn around a troubled school in Washington, DC. In 2009-2010, he taught journalism in Ukraine through the Fulbright program. He has been guest researcher at the

Institute for Peace Research and Security Policy at the University of Hamburg, Germany, and a Knight Science Journalism fellow at the Massachusetts Institute of Technology. From 1990 to 1993, Charles was a U.S. correspondent for *New Scientist*, a major British science magazine. The author of two books, Charles wrote *Master Mind: The Rise and Fall of Fritz Haber, The Nobel Laureate Who Launched the Age of Chemical Warfare* (Ecco, 2005) and *Lords of the Harvest: Biotech, Big Money, and the Future of Food* (Perseus, 2001) about the making of genetically engineered crops. Charles graduated magna cum laude from American University with a degree in economics and international affairs.

**Elisabeth Cohen** is an Associate Scientist at The University Corporation for Atmospheric Research. Previously, she served as the science communications manager at the National Oceanic and Atmospheric Administration (NOAA) in Boulder, Colorado. Prior to her work at NOAA, Cohen worked at COMET at the University Corporation for Atmospheric Research as a visiting scientist and as an associate scientist. From 2012-2014, she worked for the National Park Service's Climate Change Response Program as their education and training specialist. She completed a master's degree in public affairs with a focus on climate and environmental policy at Princeton University. Between her first and second year of her master's degree, Lis worked as part of the climate adaptation team for the White House Council on Environmental Quality. Before her enrollment in Princeton, she taught courses at the University of Utah and worked in the Utah Governor's Office on energy and climate change policy. She has a master's degree in meteorology from the University of Utah where her research focus was clouds' effects on climate. At the Museum of Science in Boston, the Franklin Institute Science Museum, the Blue Hill Weather Observatory, and in Yellowstone National Park, Lis worked as a science educator, presenter, and exhibit planner. Lis was also a reporter for Climate Central and was a columnist for the monthly Satellite Educator's Newsletter. Lis' bachelor's degree was earned at Cornell University where she double majored in Atmospheric Science and the Science of Earth Systems with a Climate Dynamics concentration. While at Cornell, Lis worked on the Mars Exploration Rovers and taught about the mission.

**Abby Dilley** is Vice President of Program Development at RESOLVE. She has over twenty-two years of experience in facilitation and mediation of scientifically complex and highly controversial public policy issues in the areas of natural resources, environment, agriculture, biotechnology and human health. She has successfully mediated policy disputes resulting in the development of legislation on pesticides and implementation of regulations concerning food labeling, accelerated approval of therapeutics for HIV/AIDS, prescription medicine labeling and information, and protection of plant germ plasm. One of her projects addressing the establishment of studies to optimize medical management of HIV infection resulted in an institutionalized public/private collaboration called the Forum for Collaborative HIV Research. Ms. Dilley has worked with a very broad range of stakeholders from the public and private sectors and non-government organizational communities at the local, state, regional, national and international levels. She holds a bachelor's degree in biology from The Colorado College and a master's degree in ecology and evolutionary biology from the University of Michigan.

**Holly Doremus** is the James H. House and Hiram H. Hurd Professor of Environmental Regulation at the University of California, Berkeley; Associate Dean for Faculty Development and Research; and Co-Faculty Director of the Center for Law, Energy, and the Environment. She

serves on the Board of Directors of Defenders of Wildlife and on California's Ocean Protection Council Science Advisory Team. Her writing has largely concentrated on the protection of nature, biodiversity, and endangered species; conflicts between biodiversity protection and water use in the arid west; the role of science in environmental law; management of public lands and public resources; and the relationship between private property rights and environmental regulation. She takes every opportunity to cross disciplinary lines in her teaching; she has taught or been a guest presenter at the Bren School of Environmental Management at UC Santa Barbara, in the Graduate Group in Ecology at UC Davis, and in the Department of Environmental Science, Policy, and Management and the Energy and Resources Group at UC Berkeley. She holds a Ph.D. in plant physiology from Cornell University (where she was a National Science Foundation graduate fellow), and a J.D. from the University of California, Berkeley.

**Gina Eosco** is a Senior Social Scientist at Eastern Research Group, with experience in conducting stakeholder engagement activities, employing social science research, and translating science into policy documents. With ERG, she has worked with scientific agencies such as the National Hurricane Center and National Weather Service on evaluating visual designs, new warnings, and most notably, the hazard simplification project. Prior to ERG, she worked for the American Meteorological Society's Policy Program. After earning a B.S. in Environmental Science and Policy at the University of Maryland College Park, she earned a M.S. and a Ph.D. in Communication from Cornell University, focusing on perceptions of risk and uncertainty to different weather graphics during tornado media coverage.

**Michael Fernandez** is a Senior Fellow at the George Washington University Sustainability Collaborative. Previously he was Senior Director of Global Public Policy for Mars, Incorporated, joining Mars in November 2008 from the Pew Initiative on Food and Biotechnology, where he served as the Director of Science and then Executive Director. He was the Initiative's primary public spokesperson and oversaw research into science and policy questions generated by agricultural biotechnology. Prior to that, Fernandez served as the Associate Administrator for the Agricultural Marketing Service at the U.S. Department of Agriculture, where he oversaw the agency's science and technology programs and was instrumental in the development of the National Organic Standards Program; as the Special Assistant to the Assistant Administrator at the U.S. Environmental Protection Agency's Office of Prevention, Pesticides, and Toxic Substances; and agricultural science and technology advisor to the U.S. Senate Committee on Agriculture, Nutrition, and Forestry. Fernandez received a Ph.D. in biochemistry and molecular biology from the University of Chicago and an undergraduate degree in biology from Princeton University.

**Nancy Gaarder** is a reporter at *The Omaha World-Herald*. A print reporter her entire career, she began at her hometown paper, *The St. Joseph, Missouri News-Press & Gazette*, as a high school copy clerk in the 1970s. She worked her way up to become the first female City Editor, News Editor and, eventually, Interim Executive Editor. In 1995, Gaarder was recruited by *The Omaha World-Herald* to join their City Desk. In 2001, Gaarder became a reporter, covering energy, the environment and weather. Today, she covers weather and social services for *The World-Herald*. Gaarder has been a member of the Society of Environmental Journalists since 2003 and was elected to the board in 2015. She is a past president of the Northwest Missouri Press Association.

A graduate of the University of Missouri School of Journalism, Gaarder also served as a Peace Corps volunteer in Cameroon.

**Fred Gould** is the William Neal Reynolds Professor of Agriculture at North Carolina State University. He is a member of the National Academy of Sciences and studies the ecology and genetics of insect pests to improve food production and human and environmental health. He has received funding from the National Science Foundation, the Bill and Melinda Gates Foundation and the National Institutes of Health, among others, for his work. Gould has been honored with both N.C. State's Holladay Medal, the highest honor presented for faculty achievement, and the O. Max Gardner Award, the most significant university-wide honor given to faculty by the UNC Board of Governors. Gould has served on National Academy of Sciences-National Research Council committees to study the environmental effects of the commercialization of genetically modified plants and develop recommendations on genetically modified pest-protected crops. He has also served on Environmental Protection Agency panels on genetically modified crops. Gould received his B.S. from Queens College, CUNY and his Ph.D. from SUNY at Stony Brook.

**George Gray** is a Professor at the George Washington University Milken Institute School of Public Health. In both academic and policymaking settings, Professor Gray has long been committed to the effective use of science to inform public health choices, and emphasizes the importance of communicating those choices effectively to citizens, journalists, and lawmakers. Prior to joining the Milken Institute SPH in 2010, Professor Gray served as assistant administrator for the EPA's Office of Research and Development and as the agency science advisor, promoting scientific excellence in EPA research, advocating for the continuing evolution of the agency's approach to analysis, and encouraging programs that provide academic research to support EPA's mission. From 2001 to 2005, Professor Gray was executive director of the Harvard Center for Risk Analysis, and a member of the faculty at the Harvard School of Public Health. Gray received his B.S. in Biology from the University of Michigan, and his M.S. (Toxicology) and Ph.D. from the University of Rochester School of Medicine and Dentistry.

**Paul Higgins** is the Director of the American Meteorological Society's Policy Program. He studies climate change and its causes, consequences, and potential solutions. His research examines the two-way interaction between the atmosphere and the land-surface to help quantify responses and feedbacks to climate change. His policy analysis helps characterize climate risks and identify potential risk management strategies. He works with decision-makers to develop new policy options that can overcome contentious political obstacles. Paul also works to inform policy makers, members of the media, and the general public about climate science and climate policy. In 2011, he was named a Google Science Communication Fellow in recognition for these efforts. From 2005-2006 Paul worked on climate policy in the United States Senate. From 2003-2005 he was a National Science Foundation postdoctoral fellow at the University of California. He received Ph.D. and M.S. degrees from Stanford University and a B.S. from The University of Michigan.

**Cheryl Hogue** is Assistant Managing Editor for policy at *Chemical & Engineering News*. Her areas of expertise include U.S. EPA regulation of commercial chemicals and pollution, international climate change policy, global environmental treaties, and federal regulatory

policies. Her reporting was awarded first place for beat reporting (small market) by the Society of Environmental Journalists in 2014. Hogue served on the SEJ board from 2004 to 2010 and is a member of the National Association of Science Writers. She was named a Carnegie Mellon University Steinbrenner Institute media fellow in 2008, an environmental media fellow at the Vermont Law School in 2005, and a science writing fellow at Woods Hole Marine Biological Laboratory in 1999. She worked a dozen years covering environmental policy for what is now Bloomberg-BNA. Hogue received an M.S. in Environmental Sciences and Policy from Johns Hopkins University and a B.S. in Biology from the College of William and Mary.

**Paul Huttner** has served as chief meteorologist for Minnesota Public Radio since 2007. Huttner has worked as a broadcast meteorologist for 25 years at TV and radio stations including WCCO-TV in Minneapolis, WGN-TV in Chicago, and KGUN-TV in Tucson. Paul covered the great Halloween Mega-Storm of 1991 in the Twin Cities and the deadly Chicago heat wave of 1995. Paul is a member of the American Meteorological Society (AMS) and has been awarded the AMS Television Seal of Approval. In 2008 Huttner earned AMS's Certified Broadcast Meteorologist (CBM) designation, the highest AMS professional certification for weather broadcasters. Huttner presented on The Great Duluth Flood of June 19-20, 2012 at the 2013 AMS Annual Conference. In early 2013, Huttner launched MPR's *Climate Cast*, a regular weekly radio segment featuring reporting and analysis on evolving climate science. Huttner was featured as a "Scientist in Focus" in the Guardian in August 2014. Paul is a graduate of Macalester College in St. Paul and holds a B.A. in Geography with an emphasis in meteorology.

**Gregory Jaffe** is the Director of the Project on Biotechnology for Center for Science in the Public Interest (CSPI). Jaffe came to CSPI after serving as a trial attorney for the U.S. Department of Justice's Environmental and Natural Resources Division and as Senior Counsel with the U.S. EPA, Air Enforcement Division. He is a recognized international expert on agricultural biotechnology and biosafety and has published numerous articles and reports on those topics. He has worked on biosafety regulatory issues in the U.S. and throughout the world, including the African countries of Kenya, Uganda, Tanzania, Mali, Ghana, Malawi, South Africa, Burkina Faso, and Nigeria. He was a member of the Secretary of Agriculture's Advisory Committee on Agricultural Biotechnology and 21st Century Agriculture from 2003-2008 and was reappointed to a new term in 2011. He was also a member of FDA's Veterinary Medicine Advisory Committee from 2004-2008. In addition, he has provided his biosafety expertise for projects involving the International Food Policy Research Institute, the World Bank, and the UNEP-GEF Biosafety Project. Jaffe earned his B.A. with High Honors from Wesleyan University in Biology and Government and received a J.D. from Harvard Law School.

**Samantha Joye** is the Georgia Athletic Association Distinguished Professor of Arts and Sciences in the Department of Marine Sciences in the University of Georgia's Franklin College of Arts and Sciences. She is an expert in biogeochemistry and microbial ecology and works in open ocean and coastal ecosystems. She has been studying natural seepage of oil and gas in the Gulf of Mexico for over twenty years. She was one of the first scientists on scene to respond to the *Deepwater Horizon* oil well blowout in the Gulf of Mexico (in 2010) and currently directs the "Ecosystem Impacts of Oil and Gas Inputs to the Gulf" consortium, which continues to track the long-term impacts of and recovery from the DWH incident. She joined the faculty of the University of Georgia after serving briefly as a research associate at San Francisco State

University and an assistant professor of oceanography at Texas A&M. She was awarded a fellowship at the Hanse Institute for Advanced Study in Delmenhorst, Germany, where she served as a visiting professor at the Max Planck Institute for Marine Microbiology in Bremen. She earned her Ph.D. in Marine Sciences from the University of North Carolina-Chapel Hill.

**Michael Kavanaugh** Ph.D., P.E., BCEE, WEF Fellow, is a principal environmental engineer based in California with more than 35 years of consulting experience in the areas of water quality, water treatment, and groundwater remediation. He currently serves as a consultant with Geosyntec. He has served a highly diverse group of private and public sector clients directly, through industry associations, and through attorneys. Dr. Kavanaugh has contributed to over 80 technical publications and more than 150 presentations to audiences that included congressional and state committees. Currently, he is an instructor for the Princeton Groundwater Course and a consulting professor in the Stanford University Civil and Environmental Engineering Department. He also serves on the Board of Directors for the Environmental Law Institute and as the chair of the National Research Council's Committee on Future Options for the Nation's Subsurface Remediation Efforts. Dr. Kavanaugh received his B.S. in Chemical Engineering, *cum laude*, from Stanford University. He received an M.S. in Chemical Engineering and a Ph.D. in Civil/Sanitary Engineering from the University of California, Berkeley.

**Lawrence Liebesman** is a Senior Advisor at Dawson and Associates with more than 35 years of experience, including 11 years at the U.S. Justice Department. He has handled cases under a range of federal environmental statutes, including NEPA, the CWA, CERCLA, the CAA and the ESA. He also served on detail to the General Counsel's staff at the Council on Environmental Quality (CEQ) during the Carter Administration working on CEQ's NEPA regulations. He specializes in federal Clean Water and Endangered Species Acts and the National Environmental Policy Act (NEPA). He has testified before Congress on proposed legislation to reform the ESA and is co-author of the *Endangered Species Act Desk Book: A Guide to Endangered Species Law* (2nd ed., 2010). Liebesman is an adjunct professor at George Washington University Law School, where he teaches a course on wildlife and ecosystem law.

**Andrew Light** is University Professor of Philosophy and Public Policy, and Director of the Institute for Philosophy and Public Policy at George Mason University, and Distinguished Senior Fellow in the Climate Program at the World Resources Institute. From 2013-2016, he served as Senior Adviser and India Counselor to the Special Envoy on Climate Change, and as Staff Climate Adviser in the Secretary of State's Office of Policy Planning in the U.S. Department of State. In this capacity he was on the senior strategy team for the UN climate negotiations through to the creation of the Paris Climate Agreement, directed the U.S.-India bilateral climate change working group, chaired the interagency working group on climate change for the Sustainable Development Goals, and led the office's efforts on climate-smart agriculture, among other issues. Before joining the government he was a Senior Fellow at the Center for American Progress in Washington, D.C. (CAP), where he led CAP's work on international climate and energy policy, serving as chief adviser on these issues to CAP's founder and chairman, John Podesta, former Chief of Staff to President Clinton, and Counselor to President Obama. During this period he authored 11 major reports and over a hundred columns and editorials.



**Tom Lininger** is the Orlando John and Marian H. Hollis Professor at the University of Oregon School of Law. Lininger's latest research focuses on the intersection of environmental law, ethics and criminal procedure. He has worked as a federal prosecutor, as counsel to a subcommittee in the U.S. Senate, and as a litigation attorney with the law firm Skadden, Arps, Slate, Meagher and Flom in San Francisco. Lininger is interested in customizing ethical and procedural rules for the unique context of environmental advocacy. He has served on the state board of directors for the Oregon Natural Resources Council and is the ethics advisor for the Sustainable Future Section of the Oregon Bar. In 2006, he received the Ersted Award for Distinguished Teaching. In 2008, he received the Lokey Award for Faculty Excellence and, in 2010, he won the Hollis Teaching Award. He earned his undergraduate degree at Yale and his J.D. at Harvard.

**Paul Locke** is an Associate Professor at the Department of Environmental Health Sciences of the Johns Hopkins Bloomberg School of Public Health. He is an environmental health scientist and attorney. His research and practice target the intersection of environmental health sciences, policy and law in the areas of radiation policy and law and toxicity testing. His areas of study include alternatives to animals in biomedical testing and toxicology, radon risk science and policy, radiation risk analysis, high-level radioactive waste disposal and the application of low dose radiobiology to policy making and. He is the author and co-author of several book chapters and numerous papers, and has published in policy and scientific journals as well as law reviews. He holds an MPH from Yale University School of Medicine and a DrPH from the Johns Hopkins University Bloomberg School of Public Health. He is also a graduate of Vanderbilt University School of Law and is licensed to practice before the bars of the states of New York, the District of Columbia, the United States District Court for the Southern District of New York and the United States Supreme Court.

**Heather Mannix** is the Assistant Director of Policy Engagement for COMPASS, working to facilitate constructive discussion and interaction between scientists and decision makers. Before coming to COMPASS, she spent seven-plus years at the Consortium for Ocean Leadership in Washington D.C., working with large ocean research programs such as the Census of Marine Life and the Gulf of Mexico Research Initiative. She also managed the Ocean Research Advisory Panel, a science advisory body to the Federal Government. She received her B.A. from Hood College in Environmental Science and Policy and M.A. from American University in Global Environmental Policy.

**Martha Marrapese** is Partner at Keller and Heckman LLP. She focuses on emerging technologies in the industrial chemicals, alternative energy, antimicrobial pesticides, plastic recycling and food sectors. She has expertise in the Toxic Substances Control Act (TSCA) and its counterparts in Canada, the European Union, and China. She provides legal counsel related to EPA, FDA, and associated regulatory needs for bio-based products and their production platforms including yeast, algae, bacteria and plants. She is the immediate past Chair of the Pesticide, Chemical Regulation and Right-to-Know Committee of the American Bar Association Section on Energy, Environment and Resources. Prior to joining Keller and Heckman, she was on staff with the EPA's Solid Waste office and worked as a legislative aide for environmental matters on Capitol Hill. She holds a B.S. from the University of Vermont and a J.D. from the Columbus School of Law of the Catholic University of America.

**Belinda Martineau** is a writer/editor at UC Davis and a former genetic engineer with Calgene Inc., where she helped commercialize the world's first genetically engineered whole food. She has been granted multiple U.S. and European patents and, in addition to peer-reviewed scientific articles, she has written about crop genetic engineering and other science-related issues for *Orion*, *California Coast & Ocean*, *Nature Biotechnology*, *Cooking Light* magazine, *The Sciences* and on her blog: biotechsalon.com. Her book, *First Fruit: The Creation of the Flav'r Savr™ Tomato and the Birth of Biotech Food* (McGraw-Hill, 2001), was called “very revealing” by Richard Lewontin, Professor of Biology Emeritus at Harvard, in *The New York Review of Books*. She earned a B.A. in Biology from Harvard University, a Ph.D. in Genetics from UC Berkeley and she was a post-doctoral fellow in the Department of Molecular Genetics and Cell Biology at the University of Chicago.

**Scott McCreary** is President of CONCUR Inc., serving as senior facilitator specializing in multiparty deliberations involving marine resources, land use, species protection and other complex natural resource management conflicts. His expertise is in facilitating Joint Fact Finding processes, which find effective ways to overcome adversary science and bring rigorous research into the decision making process. In his 32 years as an environmental planner and mediator, he has facilitated multi-stakeholder policy deliberations among diverse state and federal agencies, businesses, community groups, and conservation organizations. He balances his active facilitation practice with reflection on best practices, including a chapter in the just-published book *Joint Fact Finding for Environmental Policy in Urban and Environmental Planning Disputes* (Routledge). He has taught graduate courses at UC Berkeley and Vermont Law School and has held research positions at the Woods Hole Oceanographic Institution and the MIT-Harvard Public Disputes Program. He holds a B.A. in Biology and Environmental Planning from the UC Santa Cruz, a Masters of Environmental Planning from UC Berkeley, and a Ph.D. in Environmental Policy and Dispute Resolution from MIT 's Department of Urban Studies and Planning.

**Sunshine Menezes** is executive director of Metcalf Institute for Marine & Environmental Reporting at the University of Rhode Island Graduate School of Oceanography (URI GSO) and associate director for communication in the URI GSO Office of Marine Programs. Menezes is also co-lead of the Engagement Team for the Deep Carbon Observatory, a global research program to transform our understanding of carbon's forms, origins, quantities, and movements in Earth's interior. She currently serves on the selection committee for the American Geophysical Union's Walter Sullivan Award for Excellence in Science Journalism and is a member of a National Socio-Environmental Synthesis Center working group to create a pedagogical framework for integrating natural and social sciences in graduate education. Prior to focusing her communication efforts on improving news coverage of the environment at Metcalf Institute, she developed national and state-level environmental policy, first as a Dean John Knauss National Sea Grant Marine Policy Fellow with Congressman Frank Pallone, Jr. and later as part of a multidisciplinary team at the URI Coastal Resources Center and Rhode Island Sea Grant. Menezes received a B.S. in Zoology from Michigan State University, a Ph.D. in Biological Oceanography from the URI Graduate School of Oceanography, and was a Rhode Island Foundation Fellow from 2013- 2014.

**Bruce Myers** is a public interest lawyer at Animals | Environment PLLC. Until recently, he served as a senior attorney at the Environmental Law Institute, where he worked on the Institute's U.S. and international programs. His domestic legal and policy research at ELI centered on industrial agriculture, constitutional environmental law in the courts, and protection of water resources. He has researched federal jurisdiction under the Clean Water Act and technical aspects of the federal pollution permitting and TMDL programs. His international focus was on Africa, where he played a key role in work to reform Liberia's post-conflict forest sector through implementation of a comprehensive program of legal and institutional reforms. He is an adjunct member of the faculty of the American University Washington College of Law. He previously practiced law at a large Washington, DC, law firm, and he served as a law clerk to Senior Judge Edward Rafeedie of the U.S. District Court for the Central District of California, in Los Angeles. Myers received his J.D. and a B.A. in International Relations and French from the University of Virginia.

**Lisa Palmer** is a Senior Fellow at the National Socio-Environmental Synthesis Center (SESYNC), an interdisciplinary research center funded by the National Science Foundation and the University of Maryland, where she is a journalist-in-residence and a communications educator. She contributes to publications such as *Nature*, *Nature Climate Change*, *Climate Connections*, *The Guardian*, *Nautilus*, *The New York Times*, *Slate Magazine*, *Ensi*, and *Yale E360*, and many others. She is also a former Public Policy Scholar at the Wilson Center. She has written on everything from biotechnology and dramatic medical narratives to green tech, climate change, and sustainable agribusiness. She is the author of the forthcoming book *Hot, Hungry Planet: The Fight to Stop a Global Food Crisis in the Face of Climate Change*, to be published by St. Martin's Press in April 2017. Palmer is a professional member of the Society of Environmental Journalists, the National Association of Science Writers, and the D.C. Science Writers Association. She is a graduate of Boston University and earned her master's degree at Simmons College in Boston.

**John Pendergrass** is ELI's Vice President for Programs and Publications. He leads the Research and Policy Division, which conducts legal and policy research and analyses of pressing environmental and natural resource issues in the U.S. and globally. He also leads the Institute's Educational Programs, numbering more than 100 each year, and the Institute's Publications Division, which produces the Environmental Law Reporter, the Environmental Forum, and books. He manages a staff of 25 lawyers, scientists, and other professionals, plus Visiting Scholars and other volunteers. John has researched and written on a broad range of legal and policy issues focusing on what works in practice and how to improve the implementation of law. He leads ELI's Judicial Education Program to educate judges throughout the world about environmental law. Since 1997, Pendergrass has been a member of the accreditation council overseeing environmental and other management systems certification bodies in the United States. He also is the chair of the Greenhouse Gas Validation/Verification Accreditation Committee of the American National Standards Institute. Pendergrass has been with ELI since 1988.

**Kathryn Pollard** is an instructor for the T. Colin Campbell Center for Nutrition Studies, offering a plant-based nutrition certification course through eCornell. She is also co-founder of Sustainable Diet Inc., an online lifestyle transition program serving as a resource for doctors as

well as individuals interested in successfully transitioning to a whole food, plant-based diet to combat disease, support a sustainable environment, and live in accordance with personal values. She is a contributing writer on plant-based nutrition for newsletters and blogs including for [Plantbasedresearch.org](http://Plantbasedresearch.org), Center for Nutrition Studies, and [SustainableDiet.com](http://SustainableDiet.com), and is an invited speaker to conferences, including the Plantritian Project, North American Vegetarian Society, Penn State University nursing and care-giver conferences, and the American Society for Clinical Laboratory Science. She holds a B.A. in Mass Communication from the University of California, Berkeley and a M.S. in Applied Clinical Nutrition from the New York Chiropractic College.

**Amanda Reilly** is a reporter at E&E News in Washington, D.C. She covers the Supreme Court, federal appellate courts, and environment and energy legal trends for *Greenwire*. Previously, she covered climate policy, air policy, biofuels and environmental issues related to agriculture. Prior to joining *E&E News*, Amanda worked for a year as the only reporter at a local newspaper in central New Jersey. Her reporting has been recognized with awards from the New Jersey Press Association and the Southern Environmental Law Center. She has a B.A. in Journalism from Michigan State University and a M.A. in Environmental Resource Policy from George Washington University.

**Dave Rejeski** is the Director of the Technology, Innovation and the Environment Project at the Environmental Law Institute. He joined ELI in October 2016 after serving as director of the Science, Technology and Innovation Program at the Woodrow Wilson Center. His research at ELI focuses on better understanding the environmental impacts and opportunities created through: emerging technologies and their underlying innovation systems; structural changes in the economy driven by sharing platforms, new business models, and financing systems such as crowdfunding; and new roles for the public in environmental protection. Prior to the Wilson Center, he worked at the White House Office of Science and Technology Policy, the Council on Environmental Quality and the Environmental Protection Agency (Office of Policy, Planning and Evaluation). He is a Fellow of the National Academy of Public Administration (NAPA), a guest Researcher at the International Institute of Applied Systems Analysis (IIASA) in Austria, a member of EPA's National Advisory Council on Environmental Policy and Technology, and board member of American University's Center on Environmental Policy. He has been a Visiting Scholar at Yale University's School of Forestry and Environmental Studies, and previously served on EPA's Science Advisory Board and the National Science Foundation's Advisory Committee on Environmental Research and Education.

**Andrew Rosenberg** is the Director of the Center for Science and Democracy at the Union of Concerned Scientists. He has more than 25 years of experience in government service and academic and non-profit leadership. He is the author of scores of peer-reviewed studies and reports on fisheries and ocean management and has published on the intersection between science and policy making. Previously, he worked at Conservation International, where he served for two years as the organization's senior vice president for science and knowledge. Additionally, he served as the northeast regional administrator of the National Marine Fisheries Service at the National Oceanic and Atmospheric Administration, where he negotiated recovery plans for New England and mid-Atlantic fishery resources, endangered species protections and habitat conservation programs. Rosenberg is also the convening lead author of the oceans chapter of the U.S. Climate Impacts Advisory Panel. He is a member of the National Academy of

Sciences' Ocean Studies Board and the U.S. Commission on Ocean Policy. Rosenberg received his Ph.D. in Biology from Dalhousie University in Halifax, Canada and previously studied Oceanography at Oregon State University and Fisheries Biology at the University of Massachusetts.

**Jason Samenow** is *The Washington Post's* weather editor. Prior to working at the *Post*, he spent ten years working as a climate change analyst for the federal government, monitoring, analyzing and communicating the science of climate change. He is the founder of CapitalWeather.com, which was incepted by the *Post* in 2008. Jason is a past chairman of the D.C. Chapter of the American Meteorological Society and a Weather and Society Integrated Studies Fellow. At the University of Virginia, he earned a degree in environmental science, focusing in atmospheric science. He went on to earn a M.S. in Atmospheric Science at the University of Wisconsin-Madison.

**Benjamin Solomon-Schwartz** is the 2016-2017 Public Interest Environmental Law Fellow at ELI. Prior to joining ELI, he clerked for the Honorable Colleen Kollar-Kotelly of the United States District Court for the District of Columbia and for the Honorable Gary S. Katzmann of the Massachusetts Appeals Court. Prior to law school, he worked as a land use planner for the City of Newton, Massachusetts, and as an environmental analyst for SRA International. He holds a law degree from Harvard Law School and a master's degree in City Planning from the Massachusetts Institute of Technology, and graduated from Harvard College with a degree in Social Studies.

**Richard Somerville** is Distinguished Professor Emeritus and Research Professor at Scripps Institution of Oceanography, University of California, San Diego. He is a theoretical meteorologist and an expert on computer simulations of the atmosphere. Somerville is an authority on the prospects for climate change in coming decades. He is an author, co-author, or editor of more than 200 scientific publications. He has received awards from the American Meteorological Society for both his research and his popular book, *The Forging Air: Understanding Environmental Change*, a new edition of which was published in 2008. Among many honors, he is a Fellow of both the American Association for the Advancement of Science and the American Meteorological Society. He is a Coordinating Lead Author of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). His broader interests include all aspects of climate, including climate science outreach and the interface between science and public policy. He is the recipient of the 2015 Climate Communication Prize of the American Geophysical Union. He received a B.S. in meteorology from Pennsylvania State University and a Ph.D. in meteorology from New York University.

**Michael Traynor** is an attorney at Cobalt LLP. Michael is President Emeritus of the American Law Institute, an adviser to Restatement Fourth of the Foreign Relations Law of the United States: Jurisdiction, and the recipient of the Institute's Distinguished Service Award. He is a Fellow of the American Academy of Arts & Sciences, the American Academy of Appellate Lawyers, the California Academy of Appellate Lawyers, and the American Association for the Advancement of Science. The U.S. Court of Appeals for the Ninth Circuit honored him with its John P. Frank Award, which recognizes a lawyer who has "demonstrated outstanding character and integrity; dedication to the rule of law; proficiency as a trial and appellate lawyer; success in

promoting collegiality among members of the bench and bar; and a lifetime of service to the federal courts of the Ninth Circuit.” He co-chaired (with Jamie Gorelick) the ABA Commission on Ethics 20/20 (2009-2013). He holds an honorary LL.D from the University of South Carolina. He received his B.A. in Economics from the University of California at Berkeley, and his J.D. from Harvard Law School.

**David Verardo** joined the National Science Foundation (NSF) in 2000 and has led the Paleoclimate Program, served as the Head of the Atmosphere Section in the Division of Atmospheric and Geospace Sciences, worked in the NSF Office of Diversity and Inclusion, and has been involved in a number of NSF cross-divisional and cross-directorate research activities. Dr. Verardo joined the NSF after serving as deputy to Dr. Robert Watson, Chair of the United Nations Intergovernmental Panel on Climate Change (IPCC), for the Special Report on Land Use, Land Use Change, and Forestry. Dr. Verardo also served as a Congressional Science Fellow in the Office of U.S. Senator Ron Wyden of Oregon, working on science-based carbon sequestration strategies and nuclear waste contamination and disposal issues. Dr. Verardo holds a Ph.D. in Earth and Environmental Sciences from the Graduate School and University Center of the City University of New York, J.D. from Concord Law School, and B.A. in Geology from C.W. Post College of Long Island University. He served six years in the U.S. Coast Guard in charge of search and rescue vessels.

**Merideth Wright** joined ELI as a Distinguished Judicial Scholar in February 2012. Wright retired in 2011 as one of the two environmental judges for the State of Vermont. She had presided over the Vermont Environmental Court (now known as the Environmental Division of the Vermont Superior Court) since its creation in 1990. She has taught courses at the Vermont Law School, the University of Vermont, and Pace University School of Law, and has given presentations on judicial and environmental topics at international and U.S. conferences. Before her appointment to the bench, Wright worked for nine years in the environmental section of the Vermont Attorney General’s Office, and as a staff attorney for the Vermont Supreme Court. Before moving to Vermont in 1978, she worked for the U.S. EPA, for a small Washington, D.C. law firm, and for a prosecutor’s office. Wright earned her J.D. degree from the University of Chicago and her B.A., *magna cum laude*, from Yale University, in an independent Environmental Studies major.

**Sylvia Wu** is a Staff Attorney at the Center for Food Safety, where she works on law and policy related to genetically engineered crops, factory farming, aquaculture, pesticides, and other food safety issues. As an attorney with CFS, Sylvia has litigated against U.S. federal agencies over approval of herbicide-resistant genetically engineered crops and their associated pesticide use, the approval of pesticides that are harming pollinators and other sensitive species, as well as approval of industrial offshore aquaculture systems that will pollute our oceans and marine resources. Through legislative efforts and litigation, Sylvia also works with local communities to defend communities’ right to protect themselves against the harms of industrial agriculture. Sylvia holds a J.D. from UC Berkeley School of Law (Boalt Hall). Sylvia is involved in various projects promoting local economy and urban agriculture in the Bay Area.