



**2022 SPRING
LEADERSHIP WORKSHOP**
APRIL 30 – MAY 3, 2022 · WASHINGTON, DC

PARTICIPANT AND SPEAKER BIOGRAPHIES



JILL U. ADAMS

Washington Post Columnist, Freelance Science Journalist

Jill U. Adams is a scientist-turned-science writer. She has a Ph.D. in pharmacology from Emory University and she worked in both industry and academia as a research scientist studying the behavioral effects of drugs of abuse, as well as of potentially therapeutic neuroactive compounds. Since 2003, she has been a freelance science writer and editor, writing about health and medicine, scientific research and careers, nature and environmental science, and psychology and education. Currently Jill is a health columnist at the Washington Post and a contributor to Spectrum, an online publication covering autism research. Her writing has appeared in Scientific American, Science, Nature, Audubon, the Los Angeles Times, The Scientist, CQ Researcher, Entrepreneur, Parents, Undark, and others. Her editing work has helped researchers publish essays, opinions, and research trends for Health News Review, Sapiens, and Spectrum. Jill is currently the president of the National Association of Science Writers, a professional membership organization of journalists, authors, editors, producers, public information officers, students and people who write and produce material intended to inform the public about science, health, engineering, and technology; she is also an active member of the Association of Health Care Journalists. Jill lives with her husband and dog in Albany, New York, and texts frequently with her three adult children.



DAINA DRAVNIKS APPLE

Society of American Foresters

Daina Dravnieks Apple is a natural resource economist who served in the U.S. Forest Service for 39 years. She was Director of Knowledge Management and Communication in the Research and Development division in Washington DC and was responsible for managing R&D relationships with science organizations and advising on emerging issues likely to affect Forest Service R&D. She served as Designated Federal Official For the Forestry Research Advisory Council that reports to the Secretary of Agriculture and to Congress; and as executive secretary of the OSTP Committee on Environment, Natural Resources and Sustainability.

Apple led the first Forest Service pilot forest certification program with the Pinchot Institute, that evaluated whether forestry management practices promoted sustainable forest ecosystems; served as regional land use appeals manager in CA; was National Forest System strategic planner; and published papers on water resource policy.

Apple was elected Fellow of the Society of American Foresters; Fellow of Phi Beta Kappa, and served as President of Phi Beta Kappa Northern California Association, and as National Secretary. She is a graduate of the University of California at Berkeley, where she earned a B.Sc. In Political Economy of Natural Resources, and an M.A. in Geography.



MARTIN APPLE

American Institute of Chemists

Dr. Apple has pioneered areas of biochemistry, pharmaceuticals, artificial intelligence, sustainable agriculture, systems of systems science, behavioral economics, green chemistry, teacher education and medicine. He initiated a world pioneering research institute in molecular genetics to improve yield and nutrient quality of food plants, led a program to one of the first patented computer-assisted receptor-based drug designs, discovered new molecular tools to modify gene regulation, designed pioneering injectable systems for specific delivery of any drug to a designated specific tissue, designed, engineered and led a team that built the pioneering model of a pocket-size artificial kidney dialysis machine, initiated and led a special team into pioneering new cyber-security strategies, and managed – led several national scale long term NSF-funded studies of science teacher education. He was instrumental in the startup of five high tech companies.



DAVID BALTENSPERGER

Soil Science Society of America (SSSA)

Dr. David Baltensperger began his role as Professor and Department Head of Soil and Crop Sciences in October 2005 and recently completed serving his role as Interim Department Head for Ecosystem Science and Management. Baltensperger provides leadership and administration for a large comprehensive program of research, teaching and extension in the Department of Soil and Crop Sciences.

Baltensperger provides leadership and administration for a large comprehensive program of research, teaching and extension in the Department of Soil and Crop Sciences.



GREG BOWMAN

Washington University School of Medicine

Dr. Greg Bowman is a biophysicist who combines experiments with massive computer simulations and machine learning to understand protein dynamics, inform the development of new therapeutics, and interpret genetic variation. He also serves as the Director of the Folding@home distributed computing platform, which brings together hundreds of thousands of citizen scientists who volunteer to run simulations on their personal computers. This massive, international collaboration enables calculations that would be impossible by any other means. Furthermore, it provides an opportunity to engage the public

in cutting-edge science, and communicating the rationale for new projects, the principles that enable our work, the insights and tangible results we obtain, and the potential impact of next steps. Recent advances include new ways to combat viruses, such as Ebola and SARS-CoV-2, including new chemical matter that is progressing towards clinical trials. These efforts have been accelerated by developing new methods that draw on advances in machine learning and artificial intelligence.



DEBORAH BRONK

Association for the Sciences of Limnology and Oceanography (ASLO)

Dr. Deborah Bronk is the President and CEO of the Bigelow Laboratory for Ocean Sciences. She is an oceanographer who spent 23 years as a professor and researcher. She is also the past president of the Association for the Sciences of Limnology and Oceanography (ASLO), the past director of the Division of Ocean Sciences at the National Science Foundation (NSF), and a former chair, treasure and member-at-large of CSSP.



JENNIFER COSTLEY

The International Science Reserve

Now a Senior Advisor to the Academy, Dr. Costley was formerly Director of Physical Sciences, Sustainability and Engineering, overseeing the Academy's portfolio of sustainability and hard sciences initiatives. She worked closely with the Academy's partner organizations (corporations, foundations, government agencies and individual stakeholders) to develop conferences, symposia, workshops and other sponsor-driven programs.

Prior to joining the Academy, Dr. Costley provided technology leadership to such leading firms as Credit Suisse, DoubleClick, and Bell Labs, and was also a principal of her own consultancy where she conducted research on major technology trends and advised corporations on technology strategy and governance.

Dr. Costley has lead several international working groups to develop environmental standards for computer servers and other electronic devices. She is the author of articles in *Computer, Wall Street & Technology*, and *The New York Academy of Sciences Magazine*. She holds a Ph.D. in Chemical Physics from Columbia University, an Advanced Certificate in Finance from New York University, and a Certificate in Conservation Biology from Columbia University's Center for Environmental Research and Conservation.



SHARON CRANE

Rothwell Figg

Sharon E. Crane, Ph.D.'s practice specializes in post grant trials at the Patent Trial and Appeal Board (PTAB), litigation, and patent prosecution for clients in the biotechnology area, and she utilizes her comprehensive scientific knowledge when working with clients in all phases of patent law.

Dr. Crane has substantial experience in preparing and prosecuting patent applications in the biotechnology and chemical arts for clients ranging from independent inventors to multinational biotech companies. She devotes a significant percentage of her time to patent interferences, post grant proceedings, including inter partes review (IPR) and post grant review (PGR) proceedings, and appeals before the PTAB and Court of Appeals for the Federal Circuit. She has also represented clients in patent litigation in the federal district courts. In all matters, Dr. Crane's extensive scientific background assists her in understanding the technical aspects of a client's intellectual property at a deeper level.

Dr. Crane received a B.A. in behavioral biology from Johns Hopkins University, where she researched learning and memory. Her graduate training was in the Neuroscience Training Program at the University of Virginia and in the Biochemistry, Cellular and Molecular Biology Program at Johns Hopkins University School of Medicine, where she received her Ph.D. in molecular biology and genetics and focused on the study of lentiviruses. She received her J.D. from The George Washington University Law School.

Dr. Crane is a member of the American Bar Association (ABA) Intellectual Property Law Section, a member of the American Intellectual Property Law Association (AIPLA) USPTO Inter Partes Patent Proceedings and Biotechnology committees, and the chair of Fédération Internationale des Conseils en Propriété Intellectuelle (FICPI) CET Group 5-Biotechnology and Pharmaceuticals.



JOHN A DOWNING

Association for the Sciences of Limnology and Oceanography (ASLO)

John Downing is Director of Minnesota Sea Grant College Program, and a past-president of the Association for the Sciences of Limnology and Oceanography (ASLO). As a past Chair of the CSSP Executive Board he participated in visits to Congress on behalf of CSSP and as a member of the Consortium of Aquatic Science Societies. He was a Regent's Excellence Professor of Ecology, Evolution, and Organismal Biology, and the Department of Agricultural and Biosystems Engineering at Iowa State University.



JOSEPH FERRARA

American Crystallographic Association (ACA)

Dr. Ferrara has spent the last 30 years developing hardware and software tools for X-ray crystallography and X-ray imaging for the research community. He is currently Chief Science Officer, Rigaku Americas Corp and Vice President, X-ray Research Laboratory, Rigaku Corporation. Dr. Ferrara is a member and past chair of the Scientific Advisory Board for the BioTech Institute of the Lone Star Community College System. Dr. Ferrara is the President of the American Crystallographic Association and the Books Editor for ACA RefleXions.

Dr. Ferrara is also a Texas State Firefighters' and Fire Marshals' Association certified firefighter and National Registry Emergency Medical Responder. He has been a member of Timber Lakes Volunteer Fire Department for over 25 years and Treasurer for 15 years.

Dr. Ferrara received both his Bachelor of Science and Doctorate degrees from Case Western Reserve University in Cleveland, Ohio. He conducted undergraduate research in ion cyclotron resonance under Prof. R. C. Dunbar while his graduate research focused on physical organometallic chemistry under Prof. Wiley C. Youngs. Upon completing his doctorate in 1988, he joined Molecular Structure Corporation, which became a subsidiary of Rigaku Corporation in 1996.

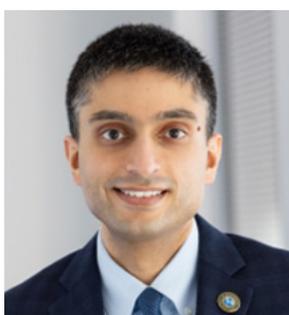


CARY FUNK

Pew Research

Cary Funk is director of science and society research at Pew Research Center, where she leads the Center's efforts to understand the implications of science for society. Center studies look at the social, ethical and policy implications of scientific developments in areas such as climate and energy, emerging issues in genetic engineering, and food and space science. She has authored or co-authored a number of reports focused on public trust in science, scientific experts and science news and information.

Funk has broad expertise in public opinion research and has specialized in public understanding of science topics for nearly two decades. Prior to joining Pew Research Center, she directed the Virginia Commonwealth University Life Sciences Surveys, national surveys on science and biotechnology. Funk began her career at CBS News in New York working on pre-election polling and analysis of exit polls. She earned a doctorate and a master's in social psychology from the University of California, Los Angeles.



ERWIN GIANCHANDANI

National Science Foundation (NSF)

Dr. Erwin Gianchandani is the U.S. National Science Foundation's assistant director for Technology, Innovation and Partnerships, leading the newly established TIP Directorate. Gianchandani has worked at NSF since 2012. Prior to becoming the assistant director for TIP, he served as the senior advisor for Translation, Innovation and Partnerships for over a year, where he helped develop plans for the new TIP Directorate in collaboration with colleagues at NSF, other government agencies, industry and academia.

During the previous six years, Gianchandani was the NSF deputy assistant director for Computer and Information Science and Engineering, twice serving as acting assistant director for CISE. Gianchandani's leadership and management of CISE included the formulation and implementation of the directorate's \$1 billion annual budget, strategic and human capital planning, and oversight of day-to-day operations for a team of over 130.

Gianchandani has led the development and launch of several new NSF initiatives, including the Smart & Connected Communities program, Civic Innovation Challenge, Platforms for Advanced Wireless Research, and the National Artificial Intelligence Research Institutes.

Before joining NSF in 2012, Gianchandani was the inaugural director of the Computing Community Consortium, providing leadership to the computing research community in identifying and pursuing bold, high-impact research directions such as health information technology and sustainable computing.

Gianchandani has published extensively and presented at international conferences on computational systems biology. He holds a bachelor's degree in computer science and master's and doctoral degrees in biomedical engineering, all from the University of Virginia.

In 2021, Gianchandani received the Distinguished Presidential Rank Award, awarded to members of the Federal Government's Senior Executive Service for sustained extraordinary accomplishment. In 2018, he was awarded the Outstanding Young Engineering Graduate Award from the University of Virginia.



STEVE GINELL

American Crystallographic Association (ACA)

Ginell is a biophysicist serving in the Biosciences Division at Argonne National Laboratory since 1992. He earned his Ph.D. in biophysics from Roswell Park Memorial Institute, SUNY Buffalo. His interest includes macromolecular crystallography of ultra-high-resolution structures, radiation damage as seen in macromolecular systems at high flux synchrotron sources, and beamline automation and robotics. He is a member of the American Crystallographic Association and the American Association for the Advancement of Science.



PATRICIA M. GLIBERT

Association for the Sciences of Limnology and Oceanography (ASLO)

Dr. Patricia Glibert is a Professor at the University of Maryland Center for Environmental Science (UMCES), Horn Point Laboratory. Dr. Glibert is an oceanographer whose work has centered around questions related to nutrient dynamics and algae. Her current work is focused on the linkages between nutrient over-enrichment and harmful algal blooms (HABs). She received her Ph.D. in Organismal and Evolutionary Biology from Harvard University. Dr. Glibert received an honorary doctorate for her work on algae from Linnaeus, Sweden, in 2011, and she was named one of the top 25 women professors in Maryland. She is an elected Fellow of the American Association for the Advancement of Science and a Sustaining Fellow of the Association for the Sciences of Limnology and Oceanography. She is currently President-Elect of the Association for the Sciences of Limnology and Oceanography (ASLO; President as of July 1).



MICHAEL GRUSAK

Crop Science Society of America (CSSA)

Dr. Mike Grusak is a USDA, Agricultural Research Service scientist and the Center Director of the Edward T. Schafer Agricultural Research Center in Fargo, North Dakota. He leads a program consisting of five research units where scientists encompass expertise ranging from crop plants to insects to food safety. The Center's broad mission is to solve problems that will help farmers produce a safe, nutritious, and sustainable food supply. Prior to his appointment as Center Director in 2017, Dr. Grusak served as a Research Plant Physiologist at the USDA-ARS Children's Nutrition Research Center (CNRC) in Houston, TX and a Professor of Pediatrics at Baylor College of Medicine. He joined the CNRC in 1990 to develop an interdisciplinary program to link plant science and production agriculture with human nutrition concerns. His research involves understanding ways to enhance the nutritional quality of plant foods for human or animal consumption. His group also has contributed to clinical investigations by providing stable isotope-labeled plant material to study nutrient bioavailability and metabolism in humans. Dr. Grusak received his Ph.D. in Botany from the University of California-Davis. His research has been funded by USDA, NSF, NIH, the US Agency for International Development, and the Bill and Melinda Gates Foundation. In 2016, he served as President of the Crop Science Society of America.



RAMIN HASANI

Vanguard, CSAIL MIT

Ramin Hasani is a Principal AI and Machine Learning Scientist at Vanguard and a Research Affiliate at the Computer Science and Artificial Intelligence Lab (CSAIL), Massachusetts Institute of Technology (MIT). Before that, he was a Postdoctoral Associate at CSAIL MIT, leading a number of projects on modeling intelligence and sequential decision-making, with Prof. Daniela Rus. He received his Ph.D. degree with distinction in Computer Science at Vienna University of Technology (TU Wien), Austria (May 2020). His Ph.D. dissertation and continued research on Liquid Neural Networks got recognized internationally by numerous nominations and awards such as TÜV Austria Dissertation Award nomination 2020, and HPC Innovation Excellence Award 2022. Hasani's research focuses on the development of interpretable and robust deep learning and decision-making algorithms. He has also been a frequent TEDx Speaker. Ramin has completed an M.Sc. in Electronic Engineering at Politecnico di Milano (2015), Italy, and has got his B.Sc. in Electrical Engineering – Electronics at Ferdowsi University of Mashhad, Iran (2012).



G. WARFIELD "SKIP" HOBBS

American Geosciences Institute (AGI)

G. Warfield "Skip" Hobbs is a professional geologist with 50 years of global petroleum, geothermal and mineral exploration and development experience. He is the managing partner of Ammonite Resources, a geotechnical and natural resource business advisory firm based in New Canaan, Connecticut. Prior to founding Ammonite in 1982, Hobbs worked internationally as an exploration geologist for Texaco and Amerada Hess. Hobbs holds a B.Sc. degree in Geology from Yale College, and a M.Sc. degree in Petroleum Geology from the Royal School of Mines, Imperial College, London. From 1982-1989 he was on the Board of Directors of the Sierra Madre Foundation for Geological Research, an organization formerly sponsored by Yale, Harvard and Cornell Universities. Skip served as the American representative on the board of the Burgess Shale Geoscience Foundation in Field, British Columbia between 2002 and 2008. He was the elected Secretary (1993-1995) of the then 33,000 member American Association of Petroleum Geologists (AAPG) and was President of the AAPG Division of Professional Affairs in 2000-2001. Hobbs served from 2004-2012 on the Executive Committee of the American Geological Institute (AGI), a federation of 51 geoscience professional societies representing over 250,000 members in every earth science discipline. He was AGI President in 2010-2011. He is a registered professional geologist in the states of Texas and Pennsylvania. Skip is an external adviser to the Geosciences Department of the University of Connecticut. Hobbs is an Honorary Member of the American Association of Petroleum Geologists, and a Fellow of the Geological Society of America. In his spare time, he manages a family farm in Massachusetts where he raises organically grown vegetables, bees and grass-fed heritage beef cattle. He is the past-president of the Connecticut Agricultural Experiment Station Associates, and a past-president of the New Canaan Nature Center. Skip writes and lectures frequently on energy, energy economics, sustainability, and climate policy.



PAMELA ISOM

U.S. Department of Energy (DOE), Artificial Intelligence and Technology Office (AITO)

Pamela K. Isom serves as Director of the Artificial Intelligence and Technology Office (AITO) for the United States Department of Energy (DOE).

Ms. Isom is a leader in ideation with extensive knowledge and experience in applying artificial intelligence in the digital ecosystem, enabling DOE to fulfill its strategic goals and objectives. She is a recipient of the 2021 Federal 100 Awards for her exceptional contributions in the way information technology is used to advance vital government missions.

Ms. Isom is also a two-time recipient of the federal Gears of Government Award for her exceptional advancements in artificial intelligence and geospatial data science at DOE, and a recipient of the InnovateIT: Modernization Innovation Leader Award for excellence in federal government IT modernization leadership.

As a principal corporate officer, she inspires others to leverage AI automation and analytics to secure and optimize systems for high-impact outcomes in clean-energy, equity, and ethical, responsible and trustworthy (R&T) AI. With a natural talent for blending business with IT, Isom advances the DOE mission through AITO in delivering highly impactful R&T AI across the DOE community and the national laboratories.

In 2015, Ms. Isom joined the United States Patent and Trademark Office (USPTO) as the Director of the Office of Application Engineering and Development, where she led design, development, and implementation of high quality patent, trademark, and corporate systems in support of federal IT modernization efforts.

During her time at USPTO, the Department of Commerce honored Isom as a part of the National Inventors Hall of Fame (NIHF) Women of Innovation exhibition, and selected her as a panelist for their “Hidden Figures” event honoring trailblazing women in labor and business.

Ms. Isom holds a master’s degree in Information Systems Management from Walden University and a bachelor’s degree in Business Administration from Chaminade University of Honolulu. In her spare time, she likes to work out, garden, spend time with family, and be a positive role model.



LUCINDA B. JOHNSON

Society for Freshwater Science (SFS)

Dr. Lucinda B. Johnson is an aquatic and landscape ecologist whose research focuses on the impacts of multiple stressors on aquatic ecosystems with emphasis on human activities (e.g., land use) and climate change. Another area of particular interest is in science communication especially to the public. To that end, Johnson and colleagues have recently developed a digital atlas for the state of Minnesota to provide non-technical users access to spatial data and information that can be used for natural resource planning and management. Johnson is the Director of Research, Natural Resources Research Institute of

the University of Minnesota Duluth where she also leads the Water Research Group. Johnson currently serves on the International Joint Commission’s Science Advisory Board and is vice chair of the Executive Committee for EPA’s Board of Scientific Counselors. Johnson grew up in Puerto Rico, and lives in Duluth MN; she received a BA degree from Duke University, an MS in Entomology from SUNY School of environmental Science and Forestry, and a PhD in Zoology from Michigan State University. She served as the President of the Association for Ecosystem Research Centers from 2011-2013, and the Society for Freshwater Science, a CSSP member, from 2010-2011.



LISA J. KEEFE

American Crystallographic Association (ACA)

Dr. Keefe is a biophysicist whose work focuses on accelerating drug discovery through synchrotron-based structural biology. She is Vice President for Advancing Therapeutics at the Hauptman-Woodward Medical Research Institute (HWI) in Buffalo, NY, and Director of the Industrial Macromolecular Crystallography Association – Collaborative Access Team (IMCA-CAT) located at the Advanced Photon Source, Argonne National Laboratory in Illinois. At IMCA-CAT, her work is aimed at implementing state-of-the-art technology and innovative approaches at the macromolecular crystallography beam-

line in order to leverage the power of synchrotron radiation for structure-based drug design. Through her leadership, IMCA-CAT has developed into a world-class research facility for the pharmaceutical industry.

A graduate of Vassar College, Dr. Keefe earned a bachelor’s degree in chemistry with certification from the American Chemical Society. She holds a doctoral degree in Biophysics and Biophysical Chemistry from The Johns Hopkins University School of Medicine. Upon completing her doctorate, she was awarded a Department of Energy Alexander Hollaender Distinguished Postdoctoral Fellowship, working jointly with Argonne National Laboratory and Brookhaven National Laboratory.

Dr. Keefe is an active member of the American Crystallographic Association, serving on Council as Past President (2019), President (2018), Vice President (2017), and Secretary (2003-2008). She currently serves as consultant to the International Union of Crystallography, Commission on Synchrotron and XFEL Radiation



JINGBO LOUISE LIU

Chinese American Chemical Society (CACs)

Dr. J. Louise Liu received her Ph.D. from the University of Science and Technology Beijing in 2001 and completed her postdoctoral fellowship in the University of Calgary in 2004. She is the director of the Center for Teaching Effectiveness, tenured Full Professor at Texas A&M University (TAMU)-Kingsville in 2016 and affiliated with the TAMU Energy Institute. Her research covers nanostructured materials design, evaluation and applications in alternative energy and biological science. She hosted 15 visiting scholars, taught > 12,000 students; trained > 200 undergraduates and 60 graduate students. She

served as the National Science Foundation panelist & chair and reviewer of dozens of journals.



LAURA MCCONNELL

Bayer U.S. LLC Crop Science Division

Dr. McConnell is an analytical chemist with more than 25 years of experience in environmental and agricultural science research. She currently serves as a Principal Scientist in the Regulatory Scientific Affairs group at Bayer CropScience in St. Louis, Missouri. Her role at Bayer focuses on communication, collaboration and engagement with the scientific community on topics relevant to the regulation of agricultural technologies.

Previously, she was a Research Chemist and Lead Scientist in the USDA-ARS where she specialized in the investigation of the chemical and physical processes controlling the environmental fate of agriculturally-relevant pollutants. A primary focus of her research was the development of improved conservation practices to mitigate pollutant transport and to provide ecosystem services.

Dr. McConnell has authored more than 100 peer-reviewed journal articles and has mentored many undergraduate students, graduate students and post-doctoral/visiting scientists. She has served on science-related advisory panels for the US Environmental Protection Agency and the European Food Safety Authority. She continues to collaborate with USDA and University of Maryland College Park colleagues where she has an adjunct research faculty appointment.



JONI L. MIHURA

Society for Personality Assessment (SPA)

Joni L. Mihura, Ph.D., ABAP is a Professor of Psychology at the University of Toledo specializing in psychological assessment and psychosis. She is Board Certified in Assessment Psychology (ABAP). Dr. Mihura received early career awards from both the Society for Personality Assessment (SPA) and the American Psychoanalytic Association (APsA) as well as an SPA award for contributions to the literature. She is a Fellow of SPA, and a past President. She has published numerous articles and chapters on psychological assessment, and best known for her work with the Rorschach inkblot test—including systematic

reviews and meta-analyses of the test's validity. She is the co-developer of a new Rorschach system, the Rorschach Performance Assessment System (R-PAS), for which she presents invited lectures and trainings internationally. She is developing a new Rorschach test specifically to assess psychosis: the Thought and Perception Assessment System (TPAS). She is the co-editor of two books—Using the Rorschach Performance Assessment System (R-PAS) and the Handbook of Gender and Sexuality in Psychological Assessment, and editor of a handbook in progress—The Oxford Handbook of Personality and Psychopathology Assessment.



SHARON MOSHER

American Geoscience Institute (AGI)

Sharon Mosher is the William Stamps Farish Chair and Professor at The University of Texas at Austin. She was Dean of the Jackson School of Geosciences (2009-2020), department chair (2007-2009) and on the faculty since 1978. Dr. Mosher's expertise is in structural geology, structural petrology, and tectonics. Since 2014 she has spearheaded two National Science Foundation sponsored initiatives, one on the Future of Undergraduate Geoscience Education and since 2017 on graduate preparation for the workforce. Mosher was President of the American Geoscience Institute (AGI) in 2012-13, President of the Geological Society of America (GSA) in 2000-2001, and 2004 Chair of the Council of Scientific Society Presidents. She is a founder and past Chair of the Board for GeoScienceWorld, an international journal aggregation for geoscientists. She is the 2020 Marcus Milling Legendary Geoscientist Medalist awarded by the American Geoscience Institute. In 2016 she was awarded the College of Liberal Arts and Sciences Alumni Achievement Award from the University of Illinois at Champaign/Urbana. She is a fellow of the Geological Society of America, receiving the Distinguished Service Award in 2003, an honorary fellow of the Geological Society of London, and recipient of the Association of Women Geologists Outstanding Educator Award (1990). She received her Ph.D. from the University of Illinois at Urbana in 1978 and M.Sc. from Brown University in 1975.



SETH C. MURRAY

Crop Science Society of America (CSSA)

Seth Murray is the President-Elect of the Crop Science Society of America. Dr. Murray's research interests focus on improving the productivity, sustainability and quality of agricultural production through scientific research and development; mostly in maize. Graduate student training is deeply embedded in all of his research. He teaches a course on the history of and current topics in American agriculture each fall and a graduate course in Molecular Quantitative Genetics in Plant Breeding each spring. He is the founder and editor of "The Plant Phenome Journal", a Crop Science Society of America and Agronomy Society of America open-access society journal. He has served as the Agronomic Science Foundation Board Chair, and as an associate editor for Crop Science and the Journal of Plant Registrations for a combined 11 years. He formerly served on the executive committee of the National Association of Plant Breeders for six years, the inaugural North American Plant Phenotyping Network elected board, as C-1 Division Chair in CSSA, and as a scientific meeting organizer for meetings including the American Seed Trade Association CSS conference, the Texas Plant Protection Association, and the Genetics of Maize-Microbe Interactions Workshop.



CHRISTOFER NELSON

Association of Science and Technology Centers (ASTC)

Christofer Nelson has served as president and CEO of the Association of Science and Technology Centers (ASTC) since 2020, supporting almost 700 science and technology centres, museums and allied organizations to create increased understanding of and engagement with science

Nelson has a BA in Political Science and Government from American University, and also studied Business and Theology at Seattle University. During his career, he has held several positions in the field of science engagement, including assistant director for open innovation at the White House Office of Science and technology policy and director of content at the USA Science & Engineering Festival, the largest science festival in the country.

Nelson was originally appointed as ASTC's chief operating officer in early 2018, where he was responsible for leading the organization's operational and financial transformation. Working with then-president and CEO, Cristin Dorgelo, he participated in field-wide listening exercises before co-authoring the ASTC's current strategic direction. Under his leadership, the Association of Science and Technology Centers will continue to pursue its mission, as well as increasing the ways that it supports its members, as they emerge from the COVID-19 crisis.



DENNIS OJIMA

Ecological Society of America (ESA)

Dr. Dennis Ojima is a senior scholar at the Heinz Center for Science, Economics, and the Environment. He is on temporary leave from Colorado State University where he is also a senior research scientist and served as Interim Director in 2005 through 2006 at the Natural Resource Ecology Laboratory (NREL). Currently at the Heinz Center, Dr. Ojima is involved in the Global Change Program working on issues related to climate change impacts on ecosystems, adaptation and mitigation strategies to climate change.

Recent research activities have been aimed at better integration of social science research in the study of environmental sciences, especially in the area of evaluation of changes in ecosystem services and land use decision making. This research is being carried out in Central Asia, Mongolia, and China to study the linkage between the pastoral land use and environmental changes related to recent social, economic, and political conditions of the region. He is an active researcher in the North American Carbon Project serving on the Data-Model Working Group. With the Chinese Academy of Sciences, he serves on the international steering committee for Regional Carbon Management. Recently, he was co-chair of the planning team developing the Science Plan for the Global Land Project and was the co-chair of the Global Land Project in 2005-2006, the new Core Project which integrates human dimensions and ecological sciences for the study of land processes under the auspices of the IGBP and the International Human Dimensions Programme (IHDP). Dr. Ojima is also member on the U.S. National SCOPE Committee and past member-at-large on the Governing Board of the Ecological Society of America (2005-2007). Dr. Ojima received his BA and Masters Degree in Botany from Pomona College (1975) and the University of Florida (1978), and his PhD from the Rangeland Ecosystem Science Department at Colorado State University in 1987. His research areas include global change effects on ecosystem dynamics. From 1997 through 2000, he led the regional climate change assessment for the Central Great Plains as part of the US National Assessment of the Potential Consequences of Climate Variability and Change.



DONNA J. NELSON

American Chemical Society (ACS)

Dr. Nelson has held several leadership positions in academia (such as Faculty Fellow in the OU Provost's Office) and in professional societies (such as 2016 American Chemical Society President, focusing on and guided by communities in chemistry). Nelson served as science advisor to the AMC television show *Breaking Bad*.

Nelson has written over 200 research-related publications and has given hundreds of invited presentations to national meetings of professional societies and organizations, universities, and radio and TV programs. She has won many awards and honors, including the Guggenheim Award, Fellow of the Royal Society of Chemistry, an Honorary Doctorate from the University of Edinburgh, ACS Fellow, NSF Special Creativity Extension, National Organization for Women "Woman of Courage" Award, Ford Foundation Fellow, Fulbright Scholarship, and NSF ADVANCE Leadership Award. She was named one of the "70 Most Inspirational Women Leaders Impacting the World" by Business.org in 2018 and among "These 12 Texas Women Made History" by UT Austin in 2021.



DHYANI PALANICHAMY

National Association of Plant Breeders (NAPB)

I am an early career scientist in crop science. The vision I have for my career is to improve food systems through plant breeding, biotechnology and data science. In my current role at Ingredion, I work with experts from diverse fields on cutting-edge food science and crop improvement projects. My major deliverables are to breed high amylose maize hybrids and select high protein legumes for processing. I am passionate about digitally transforming specialized commercial breeding programs through digital and data science tools. I collect and analyze drone imagery and other agronomic data for making selec-

tions. I also create customized databases and dashboards for our breeding and procurement teams. I volunteered to be the web coordinator for National Association of Plant Breeders (NAPB) in Feb, 2022. As part of the executive committee of NAPB, I have been fortunate enough to be mentored by the best leaders in crop science and I am looking forward to learn more through CSSP.



HASKELL PITLUCK

American Academy of Forensic Sciences (AAFS)

Hon. Haskell M. Pitluck, (Ret.) is a skilled mediator and arbitrator who garnered his extensive experience from serving as Circuit Judge, State of Illinois, Nineteenth Judicial Circuit, McHenry County for 22 years.



KIMBERLY QUACH

Consortium for Science, Policy and Outcomes

Kimberly Quach is a Program Coordinator at the Consortium for Science, Policy and Outcomes (CSPO) at Arizona State University. Her primary focus is the Consortium's work on participatory technology assessment (pTA), a method for bringing public perspectives into critical science and technology decisions. She has coordinated numerous public deliberation projects on topics such as driverless mobility, solar geoengineering research, and the future of the internet. She managed a pilot Public Interest Technology Community Innovation Fellowship to train the next generation of science-engagement professionals to collaborate with community partners to engage the public on science and technology issues in their local communities. She currently produces the Ongoing Transformation, a podcast featuring conversations about science, technology, policy, and society, to help bring these insights to new audiences. Prior to CSPO, she worked at the Ecological Society of America leading the U.S. recruitment for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.



MILA ROSENTHAL

The International Science Reserve (ISR)

Mila Rosenthal is an agitator and educator in the global fight for rights, justice, and a healthy planet. Mila helped to daydream Planet Reimagined into existence and nurture it into substance. With Planet Reimagined, she co-created the Eyes on the Goals and iHeart Radio PSA series in her previous iteration as the head of communications and advocacy for the United Nations Development Programme. Currently, at the New York Academy of Sciences, Mila runs the International Science Reserve, connecting open communities of scientists and scientific resources to respond to global climate and health disasters. Mila also teaches human rights at Columbia University and nourishes literacy and arts education in New York City's poorest communities as a Board member of the Shakespeare Forum. On her long and winding road, Mila led people and programs at other righteous institutions including Amnesty International, HealthRight International, and Concern Worldwide. Without labelling herself an expert, Mila had the privilege to work in several countries in Africa, and before that in Southeast Asia, including as part of the UN peacekeeping mission in Cambodia. In Vietnam, the women factory workers who generously shared their lives and work with Mila for two years gave her the research basis for her PhD in social anthropology from the London School of Economics; and cemented her commitment to working with and on behalf of people and communities to claim their human rights.



ANGELA SHEFFIELD

National Defense University, on detail from the Office of Proliferation Detection, U.S. Department of Energy, National Nuclear Security Administration (NNSA)

Angela M. Sheffield is a graduate student at the Eisenhower School for National Security and Resource Strategy at the National Defense University (NDU). Her research focuses on the strategic implications of advanced and emerging technologies to inform national strategy to ensure U.S. security and technological interests in long-term competition.

Ms. Sheffield is on detail to NDU from the Department of Energy's National Nuclear Security Administration, where she serves as the Senior Program Manager for Data Science and Artificial Intelligence (AI) at the Office of Defense Nuclear Nonproliferation Research and Development (DNN R&D) within the U.S. Department of Energy (DOE) National Nuclear Security Administration (NNSA). An internationally recognized expert in nuclear nonproliferation and AI, Ms. Sheffield leads the U.S. government's premier program to develop the Next Generation of AI to transform national security and fulfill mission requirements across the U.S. government to prevent the spread of nuclear weapons.

Prior to joining DOE, Ms. Sheffield worked as a scientist at DOE's Pacific Northwest National Laboratory (PNNL), where she led project teams to develop predictive modeling and analytics methodologies to reduce the threat of terrorism and proliferation of weapons of mass destruction. Ms. Sheffield has dedicated her career to driving science and technology innovations to address the toughest challenges in national security. She joined PNNL after a distinguished career as an active-duty officer in the U.S. Air Force, where she specialized in the research and development and technical intelligence of U.S. and adversary weapon systems. Ms. Sheffield holds a B.S. in Economics from the United States Air Force Academy and an M.S. in Operations Research from Kansas State University. Upon graduating from NDU she will receive an M.S. in National Security and Resource Strategy.



PATRICIA SIMMONS

National Science Teacher Association (NSTA)

Patricia Simmons currently serves as the Director of STEM Special Initiatives at the NSTA. Prior to this position, she completed a Science & Technology Policy Fellowship at the American Association for the Advancement of Science (2016-2018), working in the Engineering Directorate at the National Science Foundation. Academic positions have included Professor and Head of the Department of STEM Education at North Carolina State University, the Orthwein Professorship of Life-long Learning in the Sciences at the University of Missouri-St. Louis, Professor at the University of Georgia, and High School

Science Teacher in Missouri. Much of her scholarship has focused on the role of technology as viable and valuable learning and research tools in science education, and more recently on policy in science and in STEM education. Her professional contributions include more than 200 publications and presentations at international and national meetings in science and STEM education (i.e., World Conference on Computers in Education, International Federation for Information Processing, Australian Science Education Association, AAAS, NARST, AERA, NCTM, among many others). Simmons was awarded over \$50 million in externally funded federal and private grants for research, teacher education, and education projects. Simmons served as Chair of the Council of Scientific Society Presidents, President of the National Science Teachers Association, and President of the Association for Science Teacher Education. She received awards for excellence in teaching and in science education at UGA (Lily Teaching Fellowship), UMSL (Outstanding Faculty), ASTE (Outstanding Science Teacher Educator), and NSTA (two Gustav Ohaus Awards for Outstanding College Science Teaching), and the NSTA Distinguished Service to Science Education.



ROBERT SKELTON

ASAE: The Center for Association Leadership

Bob is a Consultant with PRM Consulting, Inc. with 35 years of executive and senior leadership experience in mission-driven and for-profit organizations. Bob has helped to build organizations and has recruited staff members ranging from entry-level to executive team members and to CEOs. He has also created and implemented the processes to effectively on-board new employees, manage their performance, and facilitate their departure if needed.

Prior to joining PRM, Bob held executive and senior leadership positions in several organizations, including a large sales and distribution company and small technology start-ups. Employers include the American Society of Association Executives, Cysive, Inc., Spaceworks, Inc., Netplex, Inc., Toyota Motor Sales USA and Webster, Chamberlain & Bean.

Bob holds a B.A. degree in Political Science/Modern Languages from the Union College in Schenectady NY, and a J.D. in corporate and tax law from the George Washington University Law School in Washington DC.

Bob is an attorney and is licensed to practice in Virginia, Maryland and the District of Columbia. He also holds the Certified Association Executive (CAE) credential and the Diversity, Equity and Inclusion Certificate from the University of Central Florida.



TOBIN (TOBY) SMITH

Association of American Universities (AAU)

Tobin (Toby) Smith oversees matters related to science and innovation policy, broader impacts of science, and AAU's international activities. He shares responsibility for matters concerning research costs and other regulatory and compliance issues, including facilities and administrative costs, export controls, scientific openness and security, public access to research results, and technology transfer. He also staffs the AAU Senior Research Officers (SRO) constituent group.

Toby previously worked as a federal relations representative for the University of Michigan and for MIT. He began his career on Capitol Hill as a legislative assistant to Congressman Bob Traxler (D-MI). Toby serves on the Advisory Board of the International Network for Advancing and Evaluating the Societal Impact of Science (AESIS); is a member of the Council of Experts for the NSF sponsored Center for Advancing Research Impact in Society (ARIS); and is co-chair of Engaging Scientists in Engineers in Policy (ESEP), an ad hoc alliance of organizations focused on helping scientists and engineers to effectively engage in the policy making process at all levels of government.

Toby writes and speaks widely on issues of science policy. He is the co-author of a 2008 book on national science policy titled, *Beyond Sputnik – U.S. Science Policy in the 21st Century*. He is active in AAAS where he is honorific fellow and officer of the Societal Impacts of Science and Engineering section (Section X). He also serves as a member of the AAAS Committee on Science, Engineering and Public Policy (COSEPP).

Toby holds a Master's degree in Legislative Affairs from George Washington University, and a Bachelor's degree in General Studies (BGS) from the University of Michigan.



STEVEN A. THOMAS

Society for Freshwater Science (SFS)

Steve Thomas is a river and stream ecologist at the University of Nebraska-Lincoln's School of Natural Resources.

Thomas' research focuses on how the flow of water links upstream and downstream habitats and how ecological interactions propagate from one location to another. Thomas, who has served in several leadership roles with the Society for Freshwater Sciences, will serve as president-elect this coming year and became president in May 2022.



APRIL ULREY

Soil Science Society of America

I'll be president of the Soil Science Society of America in 2021 and my vision for the society is to improve diversity and reach out to more graduate students and early career soil scientists. I am a professor of soil and environmental science at New Mexico State University, Las Cruces, where I teach Soils and Soil Chemistry and co-advise our Environmental Science Student Organization. Working with students is my passion.



KRISTEN VEUM

American Society of Agronomy (ASA)

Kristen Veum is the incoming President-Elect of the American Society of Agronomy. Dr. Veum is a Research Soil Scientist working with the USDA Agricultural Research Service. Her research examines how agricultural management systems impact soil function and a range of ecosystem services, such as carbon sequestration, crop productivity, nutrient cycling, and water quality. Her research also evaluates soil health indicators to improve our understanding of the advantages of conservation practices and to provide a science-based soil health interpretation framework for producers. Another focus area is development of rapid, in-field methods to make soil health assessment more accessible and affordable for all. Her research has demonstrated the soil health benefits of perennial vegetation, minimizing soil disturbance, and increased rotation diversity at the plot and field scales across the Midwestern United States. She served on the American Society of Agronomy Board of Directors, co-founded the ASA Soil Health Community in 2014, partnered with colleagues to form the Missouri Soil Health Consortium, and serves as a scientific advisor for multiple public and private soil health initiatives.

CSSP thanks its generous sponsors:



PLATINUM SPONSOR

Alamo Remedy



PLATINUM SPONSOR

Bayer



SILVER SPONSOR

Cotton Incorporated



SILVER SPONSOR

UNIVERSITY OF CENTRAL FLORIDA