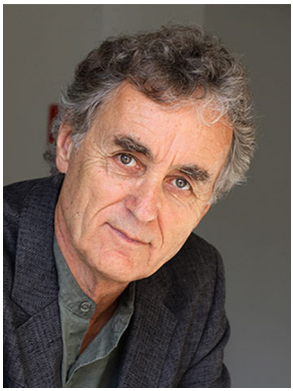
council of scientific society presidents

SEMI-ANNUAL MEETING

2-4 DECEMBER 2017
WASHINGTON, DC

SPEAKER BIOGRAPHIES



FRITJOF CAPRA

Scientist, Educator, Author, and Activist
Founding Director, Center for Ecoliteracy

Fritjof Capra, Ph.D., is a scientist, educator, activist, and author of many international bestsellers that connect conceptual changes in science with broader changes in worldview and values in society. A Vienna-born physicist and systems theorist, Capra first became popularly known for his book, *The Tao of Physics,* which explored the ways in which modern physics was changing our worldview from a mechanistic to a holistic and ecological one. Published in 1975, it is still in print in more than 40 editions worldwide and is referenced with the statue of Shiva in the courtyard of one of the world's largest and most respected centers for scientific research: CERN, the Center for Research in Particle Physics in Geneva. His most recent book, *The Systems View of Life* (Cambridge University Press, 2014), presents a grand new synthesis of this work—integrating the biological, cognitive, social, and ecological dimensions of life into one unified vision. Several critics have suggested that *The Systems View of Life,* which Capra coauthored with Pier Luigi Luisi, Professor of Biology at the University of Rome, is destined to become another classic.

Over the past 30 years, Capra has been engaged in a systematic exploration of how other sciences and society are ushering in a similar shift in worldview, or paradigms, leading to a new vision of reality and a new understanding of the social implications of this cultural transformation. He is a founding director of the Berkeley-based Center for Ecoliteracy which is dedicated to advancing ecology and systems thinking in primary and secondary education. The primary focus of Capra's environmental education and activism has been to help build and nurture sustainable communities. He believes that to do so, we can learn valuable lessons from the study of ecosystems which are sustainable communities of plants, animals, and microorganisms.

Capra serves on the faculty of the Amana-Key executive education program in São Paulo, Brazil. He is a Fellow of Schumacher College, an international center for ecological studies in the UK, and serves on the Council of the Earth Charter Initiative. He is the author of *The Turning Point* (1982), *The Web of Life* (1996), *The Hidden Connections* (2002), *The Science of Leonardo* (2007), and *Learning from Leonardo* (2013). He coauthored *Green Politics* (1984), *Belonging to the Universe* (1991), and *EcoManagement* (1993), and co-edited *Steering Business Toward Sustainability* (1995). He also co-wrote the screenplay for

Mindwalk (1990), a film starring Liv Ullmann, Sam Waterston, and John Heard, created and directed by Bernt Capra.

He received his Ph.D. in theoretical physics from the University of Vienna in 1966 and spent 20 years doing research in theoretical high-energy physics, including at the University of Paris, the University of California at Santa Cruz, the Stanford Linear Accelerator Center, Imperial College, University of London, and the Lawrence Berkeley Laboratory at the University of California. He also taught at the University of California, Santa Cruz; the University of California, Berkeley; and San Francisco State University.

Capra has been the focus of more than 60 television interviews, documentaries, and talk shows in Europe, the United States, Brazil, Argentina, and Japan, and has been featured in major newspapers and magazines internationally. He was the first subject of the BBC's documentary series, *Beautiful Minds.*

He holds an Honorary Doctor of Science degree from the University of Plymouth and is the recipient of many other awards, including the Gold Medal of the UK Systems Society, the Neil Postman Award for Career Achievement in Public Intellectual Activity from the Media Ecology Association, the Medal of the President of the Italian Republic, the Leonardo da Vinci Medallion of Honor from the University of Advancing Technology in Tempe, Arizona, the Bioneers Award, the New Dimensions Broadcaster Award, the American Book Award, and the Gold IndieFab Award from Foreword Reviews.

Capra lives in Berkeley, California, with his wife and daughter.

MARGARET MOERCHEN

Science Deputy to the President
Carnegie Institution for Science

As Science Deputy to the President at the Carnegie Institution for Science, Margaret Moerchen works on new programs, strategic planning, scientific reviews of staff and departments, organizing and monitoring ongoing scientific collaborations and teams, partnerships with other organizations, and serves as liaison to all the scientists, increasing contact between headquarters and departments.

A former postdoctoral researcher at the Space Telescope Science Institute, Moerchen was an associate editor for *Science,* working with astronomy and planetary science manuscripts. She was a postdoctoral researcher at the Leiden Observatory in Leiden, Netherlands, and was a postdoctoral fellow at the European Southern Observatory in Santiago, Chile. She grew up in central Texas and completed undergraduate coursework at the University of Texas at Austin. She completed the Project Management Professional Certificate Program, Center for Continuing and Professional Education at Georgetown University. Moerchen received her Ph.D. and M.S. degrees in Astronomy from the University of Florida where she was a NExSci Michelson Fellow.

NORMAN R. AUGUSTINE

Retired Chairman and CEO
Lockheed Martin Corporation

Norman Augustine was raised in Colorado and attended Princeton University where he graduated with a BSE in Aeronautical Engineering, magna cum laude, and an MSE. He was elected to Phi Beta Kappa, Tau Beta Pi, and Sigma Xi.

In 1958, he joined the Douglas Aircraft Company in California where he worked as a Research Engineer, Program Manager, and Chief Engineer. Beginning in 1965, he served in the Office of the Secretary of Defense as Assistant Director of Defense Research and Engineering. Augustine joined LTV Missiles and Space Company in 1970, serving as Vice President, Advanced Programs and Marketing. In 1973, he returned to the government as Assistant Secretary of the Army and in 1975 became Under Secretary of the Army, and later Acting Secretary of the Army. Joining Martin Marietta Corporation in 1977 as Vice President of Technical Operations, he was elected as CEO in 1987 and Chairman in 1988, having previously been President and COO. Augustine served as president of Lockheed Martin Corporation upon the formation of that company in 1995, and he became CEO later that year. He retired as Chairman and CEO of Lockheed Martin in 1997, at which time he became a lecturer with the rank of professor on the faculty of Princeton University where he served until 1999. Since retiring he has chaired or co-chaired 36 pro bono committees, commissions and investigations, mostly for various levels of government.

Augustine was Chairman and Principal Officer of the American Red Cross for nine years, Chairman of the Council of the National Academy of Engineering, President and Chairman of the Association of the United States Army, Chairman of the Aerospace Industries Association, and Chairman of the Defense Science Board. He is a former President of the American Institute of Aeronautics and Astronautics and the Boy Scouts of America. Augustine serves on the Board of Trustees of the National World War II Museum and is a former member of the Board of Directors of ConocoPhillips, Black & Decker, Proctor & Gamble, and Lockheed Martin, and was a member of the Board of Trustees of Colonial Williamsburg. He is a Regent of the University System of Maryland (12 institutions), Trustee Emeritus of Johns Hopkins and a former member of the Board of Trustees of Princeton and MIT. He has been

a member of advisory boards to the Departments of Homeland Security, Energy, Defense, Commerce, Transportation, and Health and Human Services, as well as NASA, Congress, and the White House. Augustine was a member of the Hart/Rudman Commission on National Security, and he served for 16 years on the President's Council of Advisors on Science and Technology under both Republican and Democratic presidents. He is a member of the American Philosophical Society, the National Academy of Sciences, and the Council on Foreign Relations. He is a Fellow of the National Academy of Arts and Sciences and the Explorers Club.

He has been presented the National Medal of Technology by the President of the United States and received the Joint Chiefs of Staff Distinguished Public Service Award. Augustine has five times received the Department of Defense's highest civilian decoration, the Distinguished Service Medal. He is co-author of *The Defense Revolution* and *Shakespeare in Charge* and author of *Augustine's Laws and Augustine's Travels.* He holds 35 honorary degrees and was selected by Who's Who in America and the Library of Congress as one of "Fifty Great Americans" on the occasion of Who's Who's fiftieth anniversary. Augustine has traveled in 126 countries and stood on both the North and South Poles of the earth.

MICHAEL J. AZIZ

Gene and Tracy Sykes Professor of Materials and Energy Technologies
John A. Paulson School of Engineering and Applied Sciences, Harvard University

Michael Aziz received a B.S. from Caltech in 1978 and a Ph.D. in Applied Physics from Harvard in 1983. He spent two years at Oak Ridge National Laboratory as Eugene P. Wigner Postdoctoral Fellow. He has been a member of the faculty at what is now the Harvard John A. Paulson School of Engineering and Applied Sciences since he joined in 1986 and is now Gene and Tracy Sykes Professor of Materials and Energy Technologies.

His recent research interests include novel materials and processes for energy technology and greenhouse gas mitigation. He is co-inventor of the organic aqueous flow battery and directs a multi-investigator research program on stationary electrical energy storage. He is the Faculty Coordinator for Harvard's University-Wide Graduate Consortium on Energy and Environment, for which he developed a quantitative course on Energy Technology for a group of students in diverse disciplines. He is authoring a textbook, *Introduction to Energy Technology: Depletable and Renewable,* to be published by Wiley-VCH.

EMILY THERESE CLOYD

Project Director, Public Engagement
American Association for the Advancement of Science (AAAS)

Emily Cloyd is the Project Director of Public Engagement at AAAS. She is a scientist and public engagement enthusiast and focuses her work on building scientists' skills in communicating and engaging the public around science. Cloyd is responsible for the daily operations of the AAAS Center for Public Engagement with Science and Technology. Since 2004, the AAAS Center for Public Engagement has worked to further awareness of science and the scientific process and increase public input into scientific research and policy agendas, encouraging and facilitating dialogue among policymakers, the general public and the scientific community. Her background is in ecology and environmental policy, and prior to joining AAAS, she led engagement and outreach efforts at the U.S. Global Change Research Program.

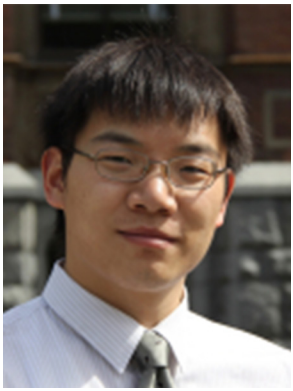
BETHANY R. JOHNS

Government Relations Advocacy Associate
American Institute of Physics (AIP)

As Government Relations Advocacy Associate for the American Institute of Physics (AIP), Bethany Johns manages the government relations advocacy services and administers tailored, nuanced strategies to educate, inform and constructively influence policy and policy-makers.

Johns has worked on a broad spectrum of issues regarded science and innovation including: agriculture, energy, and environmental science for American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. She has been a science policy consultant to the Commercial Spaceflight Federation, the premier trade association of over 40 businesses at the forefront of commercial aerospace. While at the American Astronomical Society's public policy office, she successfully secured millions of federal dollars appropriated for the space sciences.

She obtained her Ph.D. and Masters in Physics from Clemson University with an emphasis in policy studies and a B.A. in Physics from Kenyon College.



CHONG LIU

Assistant Professor, Chemistry and Biochemistry
Jeffery and Helo Zink Development Chair, UCLA

Chong Liu joined the UCLA Chemistry and Biochemistry Department in 2017. He received his B.S. in Chemistry from Fudan University, China, where he synthesized mesoporous materials with Prof. Dongyuan Zhao. He then pursued his graduate research at University of California, Berkeley, working with Prof. Peidong Yang. His Ph.D. thesis focused on artificial photosynthesis that uses solar energy to synthesize selective chemicals. A variety of building blocks, including inorganic catalysts, semiconductor nanomaterials, and even microorganisms with selective reactivity, are integrated to create efficient functional devices. He received the Materials Research Society graduate student award for his work. After receiving his Ph.D. in Chemistry at Berkeley, he continued his career as Lee Kuan Yew postdoctoral fellow sponsored by Nanyang Technological University, Singapore. Working together with Prof. Daniel Nocera at Harvard University and Prof. Pamela Silver at Harvard Medical School, he combined the strengths of biology and inorganic chemistry, and developed inorganic/bio hybrid systems of solar-driven CO_2 and N_2 fixation with the efficiencies higher than natural counterparts. These works were published in *Science* and *PNAS* of which he was the co-first author. In 2017, Liu decided to join the UCLA Chemistry and Biochemistry department as a tenure-track assistant professor under the Jeffrey and Helo Zink Endowed Professional Development Term Chair in Chemistry. Beyond research, he enjoys camping, hiking, and many other outdoor activities.

RICK LUETTICH

Professor, Marine Sciences and Environmental Sciences and Engineering
Director, Institute of Marine Sciences
Director, Center for Natural Hazards Resilience
The University of North Carolina at Chapel Hill

Rick Luettich has undergraduate and master's degrees in civil engineering from Georgia Tech and a doctor of science in civil engineering from MIT. He serves as the Director of UNC's Institute of Marine Science, which is comprised of approximately 100 residential faculty, staff and students located on the coast in Morehead City, North Carolina. He also serves as Director of the UNC Center for Natural Hazards Resilience in Chapel Hill which he founded in 2008.

Luettich's research addresses modeling and observational studies of circulation and transport in coastal waters. He has pioneered the development and application of computer models that are optimized for geometrically complex coastal systems and for high performance computing. He is co-developer of the ADCIRC circulation and storm surge model that is widely used by the academic, government and private sectors for coastal hazards prediction and for event-based forecasting. In addition, he has conducted interdisciplinary modeling and observational studies in spawning migration, larval dispersal and water quality. He has published over 100 peer reviewed papers and been PI on over $50 million dollars in extramural research funding.

He is actively engaged in the coastal science and natural hazards resilience communities, serving as the lead PI for the Department of Homeland Security's Coastal Resilience Center of Excellence and NOAA's Coastal and Ocean Modeling Testbed, and as a member of three recent National Academies committees (chairing the 2013-14 committee on Coastal Risk Reduction), the Southeast Louisiana Flood Protection Authority-East, and the Science and Engineering Advisory Council for the Water Institute of the Gulf.

CLIFFORD LYNCH

Executive Director, Coalition for Networked Information

Clifford Lynch has led the Coalition for Networked Information (CNI) since 1997. CNI, jointly sponsored by the Association of Research Libraries and EDUCAUSE, includes about 200 member organizations concerned with the intelligent uses of information technology and networked information to enhance scholarship and intellectual life. CNI's wide-ranging agenda includes work in digital preservation, data intensive scholarship, teaching, learning and technology, and infrastructure and standards development.

Prior to joining CNI, Lynch spent 18 years at the University of California in the Office of the President. For the last ten years, Lynch was the as Director of Library Automation. He holds a Ph.D. in Computer Science from the University of California, Berkeley, and is an adjunct professor at Berkeley's School of Information. He is both a past president and recipient of the Award of Merit of the American Society for Information Science, and he is a fellow of the American Association for the Advancement of Science and the National Information Standards Organization.

He served as co-chair of the National Academies Board on Research Data and Information (BRDI) from 2011-16. Lynch is active on numerous advisory boards and visiting committees. His work has been recognized by the American Library Association's Lippincott Award, the EDUCAUSE Leadership Award in Public Policy and Practice, and the American Society for Engineering Education's Homer Bernhardt Award.

CHRISTINE MCENTEE

Executive Director and CEO
American Geophysical Union (AGU)

Christine McEntee is Executive Director and CEO of the American Geophysical Union (AGU), a worldwide scientific community that advances the understanding of Earth and space through cooperation in research. She is the third Executive Director in AGU's 92-year history. Over 25 years she has made her mark as an association leader and innovator, building a steady record of achievement in leading large organizations through changes in governance, membership and the fluid public policies that confront them.

Her previous leadership experience has spanned the fields of aging, healthcare, and architecture. She served as Executive Vice President and CEO of the American Institute of Architects and previously served as CEO of the American College of Cardiology and its Foundation. McEntee began her career as a legislative representative for AARP and moved on to the American Hospital Association in 1986, where she rose to the position of Executive Vice President.

McEntee graduated from Georgetown University, and she holds a master's degree in Health Administration-Health Policy from George Washington University. She serves on the board of numerous groups, including the MedStar Health Research Institute, where she serves as Chair, the American Board of Ophthalmology and the American Board of Medical Specialists Health Policy Committee, and she has served as a member of the ASAE Awards Committee and Innovation Task Force.

She is a Fellow of ASAE, and her honors include CEO Update's CEO of the Year (2016), ASAE Women Who Advance Excellence, GWSAE's Visionary and Executive Update "Smart CEO" Award, the Annual Achievement in Health Care Management Award from Women Health Executives Network, and Crain's Chicago Business Under 40 Movers and Shakers. In 2011, McEntee was chosen for America's Top Women Mentoring Leaders and in 2012 she was featured in the "100 Women Leaders in STEM." In 2013, she was invited to author a chapter on the role scientific societies can play in informing public opinion on climate change for a publication titled, "Advances in Natural and Technological Hazards Research: New Trends in Earth Science Outreach and Engagement: The Nature of Communication."

DAVID MOHRIG

John E. "Brick" Elliott Centennial Professor
Department of Geological Sciences
Jackson School of Geosciences
The University of Texas at Austin

David Mohrig is currently the John E. "Brick" Elliott Centennial Professor in Geological Sciences, The University of Texas at Austin. His research focuses on the application of transport processes to unraveling the evolutions of terrestrial, submarine, and extraterrestrial landscapes. He studies the behavior of topography generated at the interface between a granular material and a moving fluid from very short to very long time and space scales, with particular emphasis on processes controlling channel and coastline formation. Mohrig has undergraduate and graduate degrees in geology from Pomona College and the University of Washington.

LINDA MOORE

President and CEO, TechNet

Linda Moore, a 30-year veteran of presidential campaigns, The White House, and Capitol Hill, is a senior strategist known for playing crucial roles for high profile leaders. She is the President & CEO of TechNet, the nation's preeminent, bipartisan network of technology CEOs and senior executives. In 2014, Moore was named to the board of the Women's High Tech Coalition, and in 2015, to DC's Top 50 Women in Tech. In January 2016, she was named to Wired magazine's Top 20 Tech Insiders Defining the 2016 Campaign, in which Wired described TechNet as "tech's most powerful advocacy group."

She has a long history in moderate Democratic politics, having served as Field Director for the Democratic Leadership Council, Deputy Political Director of the Clinton White House, and Senior Advisor to Indiana Senator Evan Bayh. In the fall of 2011, Moore was a Resident Fellow at Harvard Institute of Politics, where she led a weekly seminar on the decline of centrists and the increase of polarization in both parties and its impact on policy and politics. In March 2012, she was appointed by then-Secretary of State Hillary Clinton to the U.S. National Commission for the United Nations Education, Science and Cultural Organization (UNESCO). She also frequently lectures on U.S. politics, governance, and tech policy. A native Texan, Moore is a 1984 graduate of the University of Texas at Austin.

SHARON MOSHER

Dean, Jackson School of Geosciences
Professor and William Stamps Farish Chair
Department of Geological Sciences
The University of Texas at Austin

Sharon Mosher is Dean of the Jackson School of Geosciences at The University of Texas at Austin and has held this position since 2009. She is a professor and holder of the William Stamps Farish Chair and has been a faculty member at the university since 1978. Her expertise is in structural geology, structural petrology, and tectonics. Her primary research interests are in deformation along plate boundaries, the evolution of complexly deformed terranes, strain analysis, deformation mechanisms, and the interaction between chemical and physical processes during deformation. She has supervised 19 Ph.D. and 35 M.S. students and was field camp director for 15 years. She was chair of the Department of Geological Sciences from 2007-2009. Mosher received her Ph.D. in Geological Sciences from the University of Illinois at Urbana in 1978 and M.Sc. from Brown University in 1975.

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, an organization representing ~1.5 million scientists nationwide. She is a founder and past chair of the board for *GeoScienceWorld,* an international journal aggregation for geoscientists. She is an active member in many geoscientific societies including GSA, the American Geophysical Union (AGU), and the American Association of Petroleum Geologists (AAPG). She is a fellow of the Geological Society of America from which she received 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). In 2016, she was awarded the Alumni Achievement Award from her alma mater, the College of Liberal Arts at the University of Illinois at Champaign/Urbana.

DONNA J. NELSON

Professor
Department of Chemistry and Biochemistry
University of Oklahoma

Donna Nelson is professor of Chemistry at the University of Oklahoma and specializes in Organic Chemistry, which she both researches and teaches. She has almost 200 publications on the subject. Nelson's career has focused on five primary topics of research generally categorized in two areas, Scientific Research and America's Scientific Readiness. Within Scientific Research, Nelson's topics have been on (A) mechanistic patterns in alkene addition reactions and (B) Single-Walled Carbon Nanotube (SWCNT) functionalization and analysis, yielding the first COSY NMR spectrum of covalently functionalized SWCNTs in solution. Under America's Scientific Readiness, she focuses on (1) science education, which includes classroom innovations and correcting organic chemistry textbook inaccuracies, (2) ethnic and gender diversity (the Nelson Diversity Surveys) among highly ranked science departments of research universities, and (3) improving the image and presentation of science and scientists to the public. She served as a science advisor to the AMC television show *Breaking Bad.*

The Nelson Diversity Surveys provide national data on demographics of tenured and tenure-track faculty in the top 100 departments in each of 15 STEM disciplines, as ranked by NSF according to research funding expenditures. The surveys are whole populations, which are disaggregated by discipline, by race, by rank, and by gender. They provide a national benchmark for each discipline, so that a STEM department or group can compare their own data versus those in the Nelson Diversity Surveys. This is done to determine if their diversification efforts are doing better or worse than the national averages in their own discipline. Because the surveys were carried out using a single methodology, disciplines can be compared, so the data are pertinent to most STEM disciplines. The data set is unique in its range and rigor, and nothing is comparable to it for faculty data.

She was named a Guggenheim Fellow in 2003, an ACS Fellow in 2010 and was named to the Oklahoma Higher Ed Hall of Fame in 2013. Nelson served as the president of the American Chemical Society in 2016.

GABRIEL ROCKLIN

Postdoctoral Fellow
Department of Molecular Engineering and Sciences
University of Washington

Gabriel Rocklin graduated from Claremont McKenna College in 2007, majoring in Biology-Chemistry and History. He earned his Ph.D. in Biophysics at the University of California, San Francisco with Brian Shoichet and Ken Dill, where he developed new methods for predicting protein-ligand binding affinities using molecular simulations. He then moved to the University of Washington's Institute for Protein Design for postdoctoral studies with David Baker. There, he introduced a new, massively parallel approach for experimentally testing designed proteins, leading to thousands of new protein structures and laying the foundation for using large-scale experimental feedback to improve computational modeling. His research has been supported by fellowships from the NSF, Department of Defense, and the Life Sciences Research Foundation, sponsored by Merck.

LAYNE SCHERER

Program Officer
Board on Higher Education and Workforce
National Academies of Sciences, Engineering, and Medicine

Layne Scherer is a program officer with the Board on Higher Education and Workforce at the National Academies of Sciences, Engineering, and Medicine. She currently serves as the study director for the Committee on Revitalizing Graduate STEM Education for the 21st Century, a study chaired by Dr. Alan Leshner. Prior to joining the Academies, Scherer supported strategic initiatives, conducted program analysis, and managed cross-agency partnerships for the Office of the Assistant Director for Education and Human Resources at the National Science Foundation. She served as the National Science and Technology Council Executive Secretary for the Federal Coordination in Science, Technology, Engineering, and Mathematics Task Force responsible for overseeing the governance and communication between fifteen participating agencies working to improve federal investment in STEM education. As a result of the cross-agency work, Scherer developed an interest in performance management and completed training as a group facilitator and graphic recorder from the Performance Improvement Council.

She earned her M.P.P from the Gerald R. Ford School of Public Policy at the University of Michigan and focused her studies on education policy, non-profit management, and quantitative analysis. Scherer earned her B.A. from the University of Michigan. Outside of work, she is committed to the development of women's sports and is an assistant coach for the women's ultimate Frisbee team at Catholic University of America.

KATE STOLL

Senior Policy Advisor
Massachusetts Institute of Technology (MIT), Washington Office

Kate Stoll joined the MIT Washington Office in September of 2014 as Senior Policy Advisor. She focuses on health and space research including NIH, NASA, FDA, and their related Congressional committees. Stoll also engages with the MIT student and alumni advocacy communities.

Stoll received a B.A. in Biochemistry and Molecular Biology from Reed College in Portland, Oregon, and a Ph.D. in Biochemistry from the University of Washington, studying protein structure and function as it relates to the Breast Cancer Protein, BRCA1. She served as an American Association for the Advancement of Science S&T Policy Fellow at the National Science Foundation where she worked on STEM graduate education and higher education issues. She created the NSF Innovation in Graduate Education Challenge and is the co-executive editor of the publication, *The Power of Partnerships: A Guide from the NSF GK-12 Program.* Stoll has long been interested in the role of students in the research and innovation enterprise and is the co-founder of the AAAS program, Emerging Leaders in Science & Society, or ELISS, which prepares graduate and professional students to collaborate across boundaries to tackle complex challenges in society.

Currently, Stoll serves as a member of the National Academies' Board on Higher Education and the Workforce committee, Revitalizing Graduate STEM Education for the 21st Century. She previously served as an American Chemical Society Congressional Fellow with the U.S. House Committee on Energy and Commerce under Ranking Member Henry Waxman.

ROBERT TWILLEY

Executive Director, Louisiana Sea Grant College Program
Professor, Department of Oceanography and Coastal Science
Louisiana State University

Robert Twilley is Executive Director of Louisiana Sea Grant College Program and professor in the Department of Oceanography and Coastal Science at LSU. For the past two years, he has served as the President of the Coastal and Estuarine Research Federation, an international organization of scientists and managers that focus on coastal issues. In 2017, Twilley received the National Wetlands Award in Science Research, presented at the Botanic Gardens in Washington, D.C., by the Environmental Law Institute. At LSU, he has been a Distinguished Professor in Oceanography and Coastal Science, served as Associate Vice Chancellor of Research, Director of the Wetland Biogeochemistry Institute, and founder of the LSU Coastal Sustainability Studio. During his tenure at University of Louisiana at Lafayette, Twilley served as Vice President of Research, was a Distinguished Professor in Biology Department, and developed the UL Lafayette Center for Ecology and Environmental Technology. He has more than 175 publications in journals and book chapters, and he just served as co-editor of a new book on mangrove ecology published in November 2017. Twilley also served the state of Louisiana in several capacities as science advisor to coastal restoration planning projects including Louisiana Coastal Area (LCA) plan, 2007 and 2012 Louisiana Coastal Master Plans, and regional planning following Hurricanes Katrina and Rita known as Louisiana Speaks. He has been instrumental in developing the Coastal Emergency Risk Assessment (CERA) software to visualize storm surge forecasts of coastal flooding associated with tropical cyclones. Twilley has testified in several U.S. House and Senate subcommittee hearings and worked with staff from several congressional and state subcommittees, along with briefings to EPA, CEQ, OSTP, DOI, NOAA, and OMB to develop policy for coastal restoration programs. He received his B.S. and M.S. from East Carolina University, Ph.D. from University of Florida, and his post-doctoral studies were at Horn Point Laboratory at University of Maryland Center for Environmental Studies.

BILLY M. WILLIAMS

Vice President, Ethics, Diversity, and Inclusion
American Geophysical Union

Billy Williams serves as Vice President for Ethics, Diversity and Inclusion at the American Geophysical Union. He is responsible for leading AGU Ethics programs, including developing and implementing resources for addressing harassment and related work-climate issues in the scientific community and the start-up of the AGU Ethics Center. Prior to joining AGU as Science Director in 2012, Williams served as a Global Research and Development Director at the Dow Chemical Company, was President of Alexandria Partners, and he was a Senior Program Officer at the National Academy of Sciences.

Williams was Principal Investigator and lead organizer for the September 2016 NSF-funded workshop *Sexual Harassment in the Sciences: A Call to Respond,* cosponsored by the American Geophysical Union, the American Association for the Advancement of Science, the American Chemical Society, the American Geosciences Institute, the Earth Science Women's Network, and the Association for Women Geoscientists. He is currently a member of the National Academies Committee on Addressing Sexual Harassment in Academic STEM; a member of the AAAS SEA Change Advisory Board, and a co-Principal Investigator on the July 2017 NSF ADVANCE award "From the Classroom to the Field: Improving the Workplace in the Geosciences."

ROGER WILLIAMS (R-TEXAS)

United States Congressman
25th Congressional District of Texas

In the United States Congress, Roger Williams represents the 25th congressional district of Texas which stretches from Tarrant County in the north to Hays County in the south and includes much of the Texas Hill Country and Austin. He attended Texas Christian University where he made All-Southwest Conference for baseball and was named to TCU's All-Decade Team for the 1960s. After graduating from college, Williams was drafted by the Atlanta Braves and played in their farm system before an injury prematurely ended his sports career and inspired him to become a small business owner and baseball coach at TCU.

Williams was appointed by Governor Rick Perry to serve as Texas Secretary of State. As Chief Election Officer for Texas, he worked to ensure the uniform application and interpretation of election laws throughout the state. Williams worked tirelessly to promote economic development, investment and job creation in Texas. He also served as the state's Chief Liaison for Texas Border and Mexican Affairs.

Williams served as Regional Finance Chairman for Governor Bush in 1994 and 1998 before serving as the North Texas Chairman for the Bush/Cheney 2000 campaign. He was later appointed by President George W. Bush to chairman of the Republican National Finance Committee's Eagles Program. Williams served as the North Texas Finance Chairman and National Grassroots Fundraising Chairman for Bush/Cheney '04, Inc. and also served as State Finance Chair for John Cornyn for U.S. Senate, Inc.

Today, Congressman Williams continues to remain active in fundraising as chairman of the House Conservatives Fund, which helps elect true conservatives to Congress.

As a U.S. Representative of Fort Hood, Williams was instrumental in passing legislation that ensured the victims of the 2009 terrorist attack received the Purple Heart. Williams is also the proud author of a bill that would allow the President to consider former Navy Seal Chris Kyle for the Medal of Honor, our nation's highest military honor. Williams has brought with him valuable experience that has made him an effective leader.

In the House of Representatives, Williams has been the voice of business owners across America. Williams has authored a tax reform package called Jumpstart America which will

cash flow Main Street American businesses and put people back to work. It has the support of Americans for Tax Reform, former Congressional Budget Office director and economist Douglas Holtz-Eakin, former Federal Deposit Insurance Corporation chair Don Powell and countless small business owners nationwide.

In the 114th Congress, Williams serves on the Financial Services Committee, including the subcommittees on Financial Institutions and Consumer Credit, Housing and Insurance and the Task Force to Investigate Terrorism Financing.

Outside of legislating, Williams' love of baseball has followed him to the Capitol. Williams is the chair of the bipartisan Congressional Baseball Caucus and coach of the Republican Congressional Baseball Team.

The Council of Scientific Society Presidents (CSSP) thanks the Kavli Foundation for supporting the Fred Kavli Science at the Frontiers Lecture and acknowledges the American Chemical Society and the Carnegie Institution for Science for their continued cooperation.