

The National Academy of Sciences, Engineering, and Medicine (NASEM)

Roundtable on Global Science Diplomacy

Public Meeting

***The Future of International Science and Technology (S&T) Cooperation and
Science Diplomacy***

Speaker and Panelist Biographies

December 17, 2024

Opening Remarks



Katherine Himes, Ph.D. is the director of McClure Center for Public Policy Research at University of Idaho. Her expertise includes natural resources, collaborative governance, research partnerships, science diplomacy and international development. Dr. Himes has developed programs, policies and collaborations connected to water, energy, forests, rangelands, fire, disaster risk reduction, higher education, women in science, technology transfer and economic growth. Her work spans local, state, federal and international levels. Currently, Dr. Himes is co-chair of the U.S. National Academies Roundtable on Global

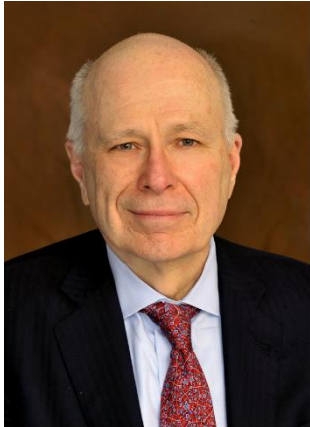
Science Diplomacy, associate editor of the journal *Science & Diplomacy* and president of the Boise Committee on Foreign Relations (BCFR) board of directors. She also serves on grant review panels for the U.S. National Science Foundation, National Academy of Sciences and Department of State. Before joining the McClure Center in 2017, Dr. Himes was an American Association for the Advancement of Science (AAAS) Science & Technology Policy Fellow. Dr. Himes earned a doctorate and bachelor's in neuroscience at the University of Minnesota, and an MBA in entrepreneurship at the University of Wisconsin-Madison.



Dr. Yulia Bezvershenko joined PGA in 2024 as a Senior Program Officer in the Office of Special Projects leading and coordinating Academies efforts on Ukraine and directing the Roundtable on Global Science Diplomacy. She is a former Ukrainian policymaker with over a decade of experience in science and innovation policy, focusing on institution building, science promotion, and fostering a knowledge-based economy in Ukraine. She served as Director-General for Science and Innovation at Ukraine's Ministry of Education and Science and was the acting chief negotiator for Ukraine's participation

in the Horizon Europe program. Yulia holds a Ph.D. in Theoretical Physics from the Bogolyubov Institute for Theoretical Physics and master's degrees in Public Policy and Governance from the Kyiv School of Economics, as well as in Physics from the National University of Kyiv-Mohyla Academy. Her experience also includes roles as a senior lecturer on quantum theory, researcher, and a Ukrainian Emerging Leaders Program 2021-2022 Fellow at Stanford University.

Opening Panel: Embracing a New Space – The Past is not Prologue



Dr. Colglazier is former Editor-in-Chief of *Science & Diplomacy* and Senior Scholar in the Center for Science Diplomacy at the AAAS. He served as Science and Technology Adviser to the Secretary of State and Executive Officer of the National Academy of Sciences. For two years he co-chaired of the Ten Member Group at the U.N. to advise on science, technology, and innovation for the 17 Sustainable Development Goals. He is a member of the International Advisory Board of the Alexander von Humboldt (AvH) Foundation and chair of the board of American Friends of AvH.



Dr. Patricia Gruber serves as the Science and Technology Adviser to the U.S. Secretary of State where she engages with academic and private sector research communities to inform foreign policy priorities. At the Office of Naval Research, she promoted domestic and international science and technology collaboration as the Director of Research and the Technical Director of ONR Global. She has held technical and business management positions at the Applied Research Laboratory at Penn State University, Battelle, AT&T, and Bell Laboratories. She holds a MS and a Ph.D. in Applied Marine Physics from the University of Miami.



Dr. Vaughan Turekian is the Executive Director of the National Academies' Policy and Global Affairs Division (PGA). Prior to joining the Academies, he served as the fifth science and technology adviser to the U.S. secretary of state. In this capacity, he advised the secretary of state and other senior State Department officials on emerging science, technology, and health matters affecting the foreign policy of the United States. He is currently the co-chair of the 10-member group of advisers to the U.N. secretary general on the role of science, technology, and innovation to advance the achievement of the Sustainable Development Goals. He has affiliations with Georgetown University School of Foreign Service and the University College London.

Panel 1: Navigating Geopolitical Confrontation, Competition, and Cooperation through International S&T Engagement



Dr. Rod Schoonover is Co-Founder of the Ecoscurity Council, a nonprofit dedicated to aligning security doctrine and policies to challenges presented by Earth system stress. He is also CEO and Founder of the Ecological Futures Group, Adjunct Professor at Georgetown University, Senior Associate Fellow at the Stockholm International Peace Research Institute (SIPRI), and Senior Associate at the Center for Strategic and International Studies. In 2022, he was a Resident Fellow at the Rockefeller Foundation's Bellagio Center studying ecological security topics. He served a decade in the U.S. intelligence community as the Director of

Environment and Natural Resources at the National Intelligence Council in the Office of the Director of National Intelligence and as Senior Scientist and Senior Analyst in the State Department's Bureau of Intelligence and Research. Before joining the government as a AAAS Diplomacy Fellow in 2009, he was a tenured Professor in the Department of Chemistry and Biochemistry at Cal Poly, San Luis Obispo, and a Visiting Research Professor in the Department of Microbiology at the Scripps Research Institute in La Jolla, California. Dr. Schoonover earned his PhD in theoretical chemical physics at the University of Michigan, where he studied complex systems.



Dr. Chris Fall is the Vice President for Applied Sciences at the MITRE Corporation, where his team spans emerging technologies; life, physical, and health sciences; transportation; energy, climate, and the environment; economics; acquisition; and enterprise strategy. Fall most recently served as the Director of the Department of Energy Office of Science, where he was responsible for 10 of the 17 DOE national laboratories, and as Acting Director of the Advanced Research Projects Agency-Energy (ARPA-E).

Previously, Fall served at the Office of Naval Research and in the White House Office of Science and Technology Policy. Fall came to public service from academia, where his focus was basic neurobiology and bioengineering. He earned a Ph.D. in Neuroscience and a B.S. in Mechanical Engineering from the University of Virginia, and an MBA from Northwestern University.



Sherri Goodman, Senior Fellow at the Wilson Center's Environmental Change and Security Program and Polar Institute, and Secretary General of the International Military Council on Climate & Security, is credited with educating a generation of US military and government officials about the nexus between climate change and national security, using her famous coinage, "threat multiplier," to fundamentally reshape the national discourse on the topic. Sherri serves as Vice Chair of the Secretary of State's International Security Advisory Board and on the EXIM Bank's Council on Climate. A former first Deputy Undersecretary of

Defense (Environmental Security) and staff member on the Senate Armed Services Committee, Goodman has founded, led, or advised nearly a dozen research organizations on environmental and energy matters, national security, and public policy. She is the author of **Threat Multiplier: Climate, Military Leadership and the Fight for Global Security** (Island Press, 2024).



Dr. Norbert Holtkamp is a Science Fellow at the Hoover Institution and Professor of Particle and Particle Astro Physics and Photon Science at SLAC National Accelerator Laboratory, both Stanford University. He joined SLAC in 2010, served as Deputy Director from 2014 to 2022 and led the implementation of the multi-laboratory partnerships of several DOE and DOE/NSF projects. Between 2006 and 2010 he was Principal Deputy Director of the ITER organization, an international treaty organization in the South of France. He had leadership roles

during the construction of the Spallation Neutron Source at Oak Ridge National Laboratory, at FERMI National Accelerator Laboratory and at DESY in Hamburg. He has an M.S. degree in physics from the Free University of Berlin and a Ph.D. from the Technical University in Darmstadt. In June 2008 I received the Gersh Budker prize of the European Physical Society.



Dr. Young-Kee Kim is Albert Michelson Distinguished Service Professor of Physics at the University of Chicago and President of the American Physical Society. As an experimental particle physicist, her research focuses on understanding the origin of mass for fundamental particles. She born and raised in South Korea. She is a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and a Fellow of the American Physical Society, the American Association for the Advancement of Science, and the Sloan Foundation, as well as the recipient of the Ho-Am Prize.

Panel 2: The Impact of Emerging Technologies: Balancing International S&T Cooperation, Economic Competitiveness, and National Security



Dr. Eugene Bae is the Director of Technology Partnerships in the Office of the Special Envoy for Critical and Emerging Technology (S/TECH) at the U.S. Department of State. He joined S/TECH after two years in the Office of the Assistant Secretary for Oceans and International Environmental and Scientific Affairs. Over his 20+ year career, he has served multiple overseas tours in New Delhi, Seoul, and Beijing, where his assignments have focused on S&T diplomacy. An engineer by training before joining the Foreign Service, Dr. Bae has a doctorate in nuclear engineering from the

Massachusetts Institute of Technology (MIT); a master's degree in technology and policy from MIT; and a bachelor's degree in electrical engineering from Missouri S&T University. He is originally from Kansas City, MO and is married with two children.



Dr. Laura H Greene is the Chief Scientist of the National MagLab and Marie Krafft Professor of Physics at Florida State University where she investigates electronic properties of correlated quantum materials including unconventional superconductors. Her leadership roles include APS President (theme of science diplomacy and human rights), AAAS Board of Directors, and Vice President of the International Union of Pure and Applied Physics (IUPAP). Her honors include being a member of NAS, the American Academy of Arts and Sciences, a founding member of the Florida Academy of Science, Engineering and Medicine,

Fellow of the Institute of Physics (UK), the AAAS, and the APS, the Oersted Medal, the Tallahassee Scientific Society Gold Medal, the APS Five Sigma Physicist Award for Advocacy in Science Policy, Guggenheim Fellowship, E.O. Lawrence Award, Maria Goeppert-Mayer Award, and Bellcore Award of Excellence. Beyond co-authoring over 200 publications and presenting over 700 invited talks, she is recognized for work in science diplomacy, diversity, ethics, human rights, and science policy. In 2022, President Biden appointed her to the President's Council of Advisors on Science and Technology (PCAST).



Dr. Richard A. Meserve is Senior Of Counsel in the Washington, DC, office of Covington & Burling LLP. He is the President Emeritus of the Carnegie Institution for Science and former Chairman of the U.S. Nuclear Regulatory Commission. He is a member of the National Academy of Engineering, the American Academy of Arts and Sciences, the American Philosophical Society, and the Council of Foreign Relations; he is a Fellow of the American Physical Society and the American Association for the Advancement of Science, and a foreign member of the Russian Academy of Sciences. He has chaired or served as a member of a wide variety of studies undertaken by NASEM, including as chairman of a recently completed study of advanced reactors and as co-chair of the National Science, Technology, and Security Roundtable.



Dr. Celia Merzbacher is Executive Director of the Quantum Economic Development Consortium (QED-C), a global consortium managed by SRI International that aims to enable and grow the quantum industry. Dr. Merzbacher has more than two decades of experience as a leader of large multidisciplinary partnerships and programs at the intersection of government and industry. She is a member of the U.S. delegation to the NATO Transatlantic Quantum Community and is U.S. Co-Chair of the Quad Investors Network's Quantum Center of Excellence. She also serves on advisory boards for several research institutes. Dr. Merzbacher is a Fellow of the AAAS and served as Chair of the National Materials and Manufacturing Board of the National Academies of Science, Engineering and Medicine and on the Boad of Directors of ANSI.

Panel 3: Solving Global Challenges through International S&T Cooperation



Peter Hotez MD PhD (or Peter Hotez MD PhD DSc(hon) FAAP FASTMH) is Professor of Pediatrics and Molecular Virology and Microbiology at Baylor College of Medicine where he is also the Dean of the National School of Tropical Medicine and Co-Director of the Texas Children's Hospital Center for Vaccine Development. Prof. Hotez is a pediatrician-scientist who develops vaccines for neglected diseases and global health, including new vaccines for hookworm anemia, schistosomiasis, and Chagas disease. He also co-led efforts to develop a low-cost recombinant protein COVID-19 vaccine that reached 100 million people in India and Indonesia; this work was recognized by the

National Academy of Medicine with its David and Beatrix Hamburg Award in Biomedical Research and Clinical Medicine. Dr. Hotez is an elected member of the National Academy of Medicine and American Academy of Arts and Sciences. He has been recognized both for his scientific advances and advocacy at countering antivaccine activism. For this work he has received the AAAS Scientific Freedom & Responsibility Medal, the AMA Scientific Achievement Award, the Sigma Xi McGovern Science & Society Award, the Mendel Medal from Villanova University, and the Porter Prize from Univ Pittsburgh. He is the author of 700 scientific publications and 5 single authored books. Prof. Hotez obtained his B.A. from Yale University, M.D. from Weill Cornell Medical College and Ph.D from Rockefeller University.



Dr. Frances Colón is the Senior Director for International Climate Policy at Center for American Progress where she leads a program to drive international ambition and action to meet the climate crisis. Colón is the former member of President Biden's Council of Advisors on Science and Technology and former Deputy Science and Technology Adviser to the Secretary of State where she promoted integration of science and technology into foreign policy dialogues, global advancement of women in science, and climate policy for President Obama's Energy and Climate Partnership of the Americas. Dr. Colón earned her Ph.D. in

Neuroscience in 2004 from Brandeis University and her B.S. in Biology in 1997 from the University of Puerto Rico. Colón was a City of Miami Climate Resilience Committee member and a 2020 Yale-OpEd Project Public Voices on the Climate Crisis Fellow. She is a member of the National Academies of Science, Engineering and Medicine Roundtable on Science and Technology for Sustainability, and the Academies' Global Science Diplomacy Roundtable.



Dr. Raymond Jeanloz, a professor of Earth and Planetary Science and of Astronomy at the University of California at Berkeley, studies materials at high pressures, including through international research collaborations. He also works at the interface of science and policy in areas ranging from national and international security to scientific publication, education and outreach, currently chairing the National Academy of Sciences, Engineering and Medicine Committee on International Security and Arms Control. He is Editor of

the *Annual Review of Earth and Planetary Sciences*, and has previously served on the Secretary of State's International Security Advisory Board and chaired the National Research Council's Board on Earth Sciences and Resources. He has a PhD from the California Institute of Technology.



Dr. Catherine Woteki is an agriculture and food scientist and nutritionist who served in the U.S. Department of Agriculture (USDA) as Chief Scientist and Under Secretary for Research, Education, and Economics, where she oversaw USDA'S Agricultural Research Service, Economic Research Service, the National Institute of Food and Agriculture, and the National Agricultural Statistics Service. A former Deputy Associate Director for Science at the White House Office of Science and Technology Policy, Dr. Woteki also served as Dean of the College of Agriculture at Iowa State University and served as Global Director

of Scientific and Regulatory Affairs at Mars, Inc. She is a member of the President's Council of Advisors on Science and Technology and the National Academy of Medicine, and a fellow of the American Association for the Advancement of Science.

Panel 4: Science Diplomacy Priorities for U.S. Government Agencies and U.S. Non-Governmental Organizations



Ms. Cathy Campbell has dedicated her career to advancing international science and technology cooperation. She is the retired President/CEO of CRDF Global, which she joined in 2002. Campbell served from 1998-2002 as director of the Office of International Policy and Programs, Department of Commerce's Technology Administration. From 1995-1997, she was a senior policy analyst in the White House Office of Science and Technology Policy. Campbell was the U.S. State Department's program officer for Soviet/Russia/Ukraine science and technology affairs from 1989-1995, and previously conducted research at Presearch, Inc., the Federal Research Division of the Library of Congress, and the Rand Corporation. She currently chairs the RESET Ukraine Action Group under the NAS Global Science Diplomacy Roundtable and is a member of the Board of Governors, US-Israel Binational Science Foundation. Campbell is an AAAS Honorary Fellow and previously served as a Visiting Scholar, AAAS Center for Science Diplomacy.



Dr. Kim Montgomery is the Director of International Affairs and Science Diplomacy at the American Association for the Advancement of Science (AAAS). In this role, she advises on bilateral and multilateral relationships, manages the AAAS Center for Science Diplomacy, and serves as the Editor-in-Chief of the policy journal *Science & Diplomacy*. Kim has worked at the intersection of science, policy, and international affairs for 15 years. She has worked overseas for international and multilateral organizations at the International Institute for Applied Systems Analysis (IIASA) and the International Atomic Energy Agency (IAEA), as well as in Washington, D.C. at the U.S. House of Representatives as professional staff for the Committee on Science, Space, and Technology and personal staff for a Member of Congress, and at the Nuclear Threat Initiative as a senior program officer. She was an AAAS Science and Technology Policy Fellow at the National Science Foundation and has a Ph.D. from Princeton University and a bachelor's degree from Northwestern University.



Dr. France A. Córdoba is an astrophysicist and the President of the Science Philanthropy Alliance, where she leads efforts to guide philanthropy in support of high-impact scientific advancements. She served as the 14th director of the National Science Foundation (NSF) from 2014 to 2020, fostering global research collaborations and pioneering new scientific initiatives. Córdoba has held prominent roles in academia and government, including as President Emerita of Purdue University and Chancellor Emerita of the University of California, Riverside. She also served as NASA's Chief Scientist, contributing to the agency's strategic direction and the International Space Station. A member of the American Academy of Arts and

Sciences and the National Academy of Sciences, Córdoba has received numerous honors, including the Kilby Laureate Award and the Kennedy-Lemass Medal.



Dr. Walter G. Copan is Vice President for Research and Technology Transfer at the Colorado School of Mines, a leading U.S. research university, and Senior Advisor and co-founder of the Renewing American Innovation Project at the Center for Strategic and International Studies in Washington, D.C. He previously served as Under Secretary of Commerce for Standards and Technology and 16th Director of the National Institute of Standards and Technology (NIST), and was the U.S. principal presidential advisor on standards policy and technology. Dr. Copan is a distinguished leader with wide-ranging experience spanning large company, entrepreneurial tech

startup, U.S. government, non-profit, academia and other public sector settings. He earned undergraduate degrees and his Ph.D. in physical chemistry from Case Western Reserve University. Among the honors he has received, he is a Fellow of the National Academy of Inventors and was named 2020 Laboratory Director of the Year by the Federal Laboratory Consortium.



Dr. Ali Sayir is Program Manager for Materials with Extreme Properties portfolio within the Air Force Office of Scientific Research, which sponsors basic research around the world. Dr. Sayir oversees work on mathematic quantification of microstructures for DOD and leads major national programs in computational material science. He has responsibility for planning, directing, and securing long-term program support in extreme environment electronics and materials for quantum information sciences. Dr Sayir has published 127 peer reviewed

publications, 2 book chapters, received 3 patents, have over 40 invited presentations, and is a Fellow of the American Ceramic Society and the Air Force Research Laboratory and a recipient of NASA's Medal for Public Service.