NATIONAL ACADEMIES Sciences Engineering Medicine

National Science, Technology, and Security Roundtable
Capstone Workshop
July 16-17, 2024

SPEAKER BIOGRAPHIES

Chaouki T. Abdallah* joined the Georgia Institute of Technology on September 1, 2018 as a Professor of Electrical & Computer Engineering and the Executive Vice President for Research. Prior to that, he was a professor of Electrical and Computer Engineering at the University of New Mexico (UNM). He also served as Chair of the ECE department at UNM between 2005 and 2011, and as Provost of UNM between July 2011 and August 2018. Between January 2017 and February 2018, he also served as the 22nd President of UNM. As the chief research officer of Georgia Tech, Abdallah provides overall leadership for the Institute's $1 billion portfolio of research, economic development, and sponsored activities, including the Georgia Tech Research Institute, eleven interdisciplinary research institutes, and related research administrative support units. He also serves on the executive committee of the Council on Research for the Association of Public and Land-Grant Universities, the executive committee for the Government-University-Industry Research Roundtable, and the advisory committee for the Center on Measuring University Performance. Abdallah obtained his Bachelor's of Engineering degree from Youngstown State University in 1981, and his MS and PhD in Electrical Engineering from Georgia Tech in 1982, and 1988 respectively. Abdallah conducts research and teaches courses in the general area of systems theory with focus on control, communications, and computing systems. Abdallah is a senior member of IEEE, is a recipient of the IEEE Millennium medal, and is fluent in English, French, and Arabic.

Jason Donovan* is a career member of the U.S. Senior Foreign Service, class of Counselor. He joined the Service in 1999, after working in academia and in the private sector as a technology entrepreneur. He served his first tours in Guatemala and Italy, prior to returning to Washington, where he worked in the State Department's Operations Center and on the Executive Secretariat staff. Jason coordinated regional security initiatives in Southeast Asia before moving to U.S. Embassy New Delhi, where he worked as the Deputy in the Economic Section focusing on clean energy cooperation. After being recalled to Washington to serve as Director for South Asia at the National Security Council, Jason was State Department Deputy Director for Western Europe, then Director for Multilateral and Global Affairs. Jason led the International Narcotics and Law Enforcement section at U.S. Mission Pakistan before joining U.S. Embassy London as Political Counselor. He assumed his duties as Director of the Office of Science and Technology Cooperation in September 2022. Jason speaks French, Spanish, and Italian.

Paul Doucette is Vice President of Government Relations and Public Policy at Battelle, the world's largest nonprofit research and development organization. In addition to managing Battelle's government relations team and overseeing the operation of the Battelle Washington Office, he is responsible for issues related to the Department of Energy's Office of Science and the National Nuclear

Security Administration, and advises corporate leadership and the directors of the Battelle-affiliated national laboratories on relevant policy and budget matters. Before joining Battelle in 2008, Paul was Legislative Director and science and technology advisor to U.S. Representative Judy Biggert (R-IL), a senior member of the House Science and Technology Committee, former chairman of its Energy Subcommittee during the 108th and 109th Congresses, and co-founder of the House Research and Development Caucus. In this capacity, Paul worked closely with senior scientists and management at Argonne National Laboratory – located in Biggert's district – to identify and advance the laboratory's legislative priorities. Paul joined Representative Biggert's staff in 1999 after serving as a legislative aide in the Washington, DC office of Illinois Governor Jim Edgar, where he was responsible for state-federal relations on energy and environmental issues. Originally from Rochester, Minnesota and now residing in Alexandria, Virginia, Paul received a Bachelor of Science in Business and Public Administration in 1997 from Drake University, and now serves on its Board of Trustees.

Kelvin Droegemeier is Professor of Atmospheric Science and Special Advisor to the Chancellor for Science and Policy at the University of Illinois at Urbana-Champaign. Dr. Droegemeier served as the Regent's Professor of Meteorology, Weathernews Chair Emeritus, and Roger and Sherry Teigen Presidential Professor at the University of Oklahoma, where he had been a member of the faculty from 1985-2023. He previously served as the University of Oklahoma's vice president for research from 2009 to 2018 and founded and served for five years as director of the Sasaki Institute, which fostered the development and application of knowledge, policy, and advanced technology for societal impact. He served as chair of the Association of Public and Land Grant University's Council on Research Policy and Graduate Education (now the Council on Research) and is a fellow of both the American Meteorological Society and American Association for the Advancement of Science. Dr. Droegemeier's federal science and policy leadership roles include serving on the National Science Board from 2004 to 2016, the last four years as vice chair, and directing the White House Office of Science and Technology Policy (OSTP) from 2019 to 2021. Concurrent with his leadership of OSTP he also served as acting director of the National Science Foundation for two and a half months in 2020. At the state level, he was appointed to the Oklahoma Governor's Science and Technology Council, serving from 2011 to 2019, and as Cabinet Secretary of Science and Technology from 2017 to 2019.

Charles Durant began his professional career in national intelligence in 1980 when he joined the U.S. Army as a German language signals intelligence voice interceptor and he served military tours at U.S. Army Field Station Berlin in West Berlin; Fort Huachuca, AZ; Fort Meade, MD; and Fort Carson, CO. After the fall of the Berlin wall, Chuck transitioned to U.S. Army Counterintelligence in 1993 and served tours at the BENELUX (Belgium, Netherlands, Luxembourg) Military Intelligence Detachment, the 10th Special Forces Group at Fort Carson, CO, and the U.S. Army Foreign Counterintelligence Activity (USAFCA) at Fort Meade as well as a deployment to Hungary in support of the international peace keeping mission in the former Yugoslavia. Chuck retired from the Army in 2000 and returned to USAFCA as a Counterintelligence Agent. After 9/11, he went to work for the National Security Agency until he returned to USAFCA as the Chief of Investigations. He then served as U.S. Army representative to the DoD Counterintelligence Field Activity before assuming a position with the White House Military Office where he provided counterintelligence and security support to the President and White House staff on overseas visits. In 2009, Chuck joined the Department of Energy (DOE) Office of Intelligence and Counterintelligence. In 2011, he became the DOE Deputy Director of Counterintelligence until his retirement from federal service as a member of the Senior Executive Service. After his retirement from

federal service in April 2019, Chuck worked as the Berkshire Hathaway Energy Director of National Security and Resiliency Policy in Washington DC. In October of 2020, Chuck joined Oak Ridge National Laboratory Field Intelligence Element Director and conducts frequent external engagement with sponsors across the U.S. Intelligence Community. Chuck has over 43 years of intelligence community experience and in 2019 was recognized for his service by the DOE Secretary of Energy with a Meritorious Service Award, the National Nuclear Security Administrator's gold medallion, and a Lifetime Counterintelligence Achievement Award by the Director of National Intelligence's National Counterintelligence and Security Center.

Joe A. Elabd is a Vice Chancellor for Research at The Texas A&M University System, a system of 11 universities and 8 state agencies with externally funded research expenditures of $1.3 billion annually. As the leader of the A&M System Office of Research, Dr. Elabd is responsible for providing research leadership and services to support all 19 system members and overseas numerous offices and initiatives, including Texas A&M Innovation, National Laboratories Office, Bush Combat Development Complex, Texas A&M Semiconductor Institute, Texas A&M Fort Worth, Research Security Office, Research Compliance Office, Research Administration Office, Research Development Office, and the Chancellor's Research Initiative. Prior to these roles, Dr. Elabd served in several administrative roles at Texas A&M University, including the Interim Vice Chancellor and Dean of Engineering, Interim Director of the Texas A&M Engineering Experiment Station, Associate Dean for Research of Engineering, and Associate Department Head of Chemical Engineering. Dr. Elabd is also currently a Professor and the Axalta Coating Systems Chair II in the Artie McFerrin Department of Chemical Engineering at Texas A&M University. He is a Fellow of the American Physical Society and served as a Senior Fellow at the Instituto di Studi Avanzati, Università di Bologna and a Scholar in Residence at the Food & Drug Administration. He has received numerous research awards including the NSF CAREER Award, the ARO Young Investigator Award, and the DuPont Science and Engineering Award. His research focuses on electrochemical energy (batteries, capacitors, fuel cells) and materials and polymer science. Dr. Elabd has taught chemical engineering courses at all levels (freshmen, sophomore, junior, senior, and graduate). Dr. Elabd received his Ph.D. and B.S. both in chemical engineering from Johns Hopkins University and University of Maryland, Baltimore County, respectively, and was a National Research Council Postdoctoral Fellow at the U.S. Army Research Laboratory.

William Evanina was confirmed by the U.S. Senate on May 6, 2020 to be the first Senate-confirmed Director of the National Counterintelligence and Security Center (NCSC). Mr. Evanina served as the Director of NCSC since June 2, 2014. In this position, he was the head of Counterintelligence (CI) for the U.S. Government. Mr. Evanina was responsible for leading and supporting the CI and security activities of the US Intelligence Community, the U.S. Government, and U.S. private sector entities at risk from intelligence collection or attack by foreign adversaries. Under NCSC, he oversaw national-level programs and activities such as the National Insider Threat Task Force; personnel security and background investigations; information technology protection standards and compliance; CI cyber operations; supply chain risk management; threat awareness to sectors of the US critical infrastructure; national-level damage assessments from espionage or unauthorized disclosures, CI mission management, and national CI and security training programs. Under Mr. Evanina's leadership, NCSC produced the President's *National Counterintelligence Strategy of the United States of America 2020,* which has been instrumental in raising foreign intelligence threat awareness to critical infrastructure sectors and the private sector executives regarding supply chain, economic security, cyber, and malign foreign

influence. Mr. Evanina chaired the National Counterintelligence Policy Board, and the Allied Security and Counterintelligence Forum comprised of senior CI and security leaders from Australia, Canada, New Zealand, and the UK. Mr. Evanina also served as Chair of the NATO Counterintelligence Panel. Prior to his selection as the Director of NCSC, Mr. Evanina served as the Chief of the Central Intelligence Agency's Counterespionage Group. Mr. Evanina previously served as Assistant Special Agent in Charge of the FBI's Washington Field Office, where he led operations in both the Counterintelligence and Counterterrorism Divisions. Mr. Evanina served over 31 years of distinguished federal service, 24 of which as a Special Agent with the Federal Bureau of Investigation (FBI). At the start of his law enforcement career in 1996, he investigated organized crime and violent crimes through the FBI's Newark Field Office. He then served on an FBI SWAT unit for 10 years, ultimately supervising this unit. He led some of the highest profile terrorism investigations in our nation's history including the 9/11 attacks, the anthrax attacks, and the Daniel Pearl kidnapping. During his tenure with the FBI's Joint Terrorism Task Force, Mr. Evanina was selected as a Supervisory Special Agent and received the FBI Director's Award for Excellence for his leadership in the investigation into convicted spy Leandro Argoncillo. Mr. Evanina's government career began in 1989 as a Project Manager with the General Services Administration, in Philadelphia. He holds a bachelor's degree in public administration from Wilkes University in Wilkes Barre, PA, and a master's degree in educational leadership from Arcadia University in Philadelphia. Mr. Evanina currently serves as Founder and CEO of the Evanina Group advising CEOs and Board of Directors on strategic corporate risk.

Thomas Fingar* is the Shorenstein Asia-Pacific Research Distinguished Fellow in the Freeman Spogli Institute for International Studies, Stanford University. From 2005 through 2008, he served as deputy director of national intelligence for analysis and, concurrently, as chairman of the National Intelligence Council. Dr. Fingar served previously as assistant secretary of the U.S. State Department's Bureau of Intelligence and Research (2000-2001 and 2004-2005), principal deputy assistant secretary (2001-2003), deputy assistant secretary for analysis (1994-2000), director of the Office of Analysis for East Asia and the Pacific (1989-1994), and chief of the China Division (1986-1989). Between 1975 and 1986 he held a number of positions at Stanford University, including senior research associate in the Center for International Security and Arms Control. Dr. Fingar is a graduate of Cornell University (A.B. in Government and History, 1968), and Stanford University (MA, 1969 and PhD, 1977 both in political science).

Peter Fisher is an American experimental particle physicist, as well as the Thomas A. Frank (1977) Professor of Physics and the former head of the Department of Physics of the Massachusetts Institute of Technology (MIT). He is a Fellow of the American Physical Society. From 1989 to 1994, Fisher was on the faculty of Johns Hopkins University. He joined the MIT faculty in 1989 and became a full professor in 2001. Fisher's research has included twelve years at CERN working on the Alpha Magnetic Spectrometer for the International Space Station. His research interests also include the detection of dark matter, development of new particle detectors, compact energy supplies, and wireless energy transmission. He released his first book in 2022, "What is Dark Matter?, synthesizing his own and peers research into the topic. He was chair of the MIT Department of Physics from 2014 to 2022. He became the first Head of the MIT Office of Research Computing and Data in 2022. He is a member of JASON (advisory group). Fisher became a Fellow of the American Physical Society, nominated by the Division of Particles and Fields in 2006, and cited for "initiating Tau Polarization Asymmetry Measurements and W-Boson self couplings, leading to a top mass prediction (found later at FNAL). First proof of single W-production in e+ e- annihilation. Determination of sin20w with proposal to expand to highest accuracy

of 10-5 at LHC." He was named a fellow for the American Association for the Advancement of Science in 2020. He earned a B.S. in engineering physics at the University of California, Berkeley, in 1983, and a Ph.D. in nuclear physics at the California Institute of Technology in 1988. His dissertation, *A search for double beta decay in ^{76}Ge,* was supervised by Felix H. Boehm.

Patrick Gallagher is a professor of Physics at the University of Pittsburgh, following 9 years as Chancellor between 2014 and 2023. Prior to joining Pitt, Dr. Gallagher served for 21 years at the National Institute of Standards and Technology (NIST), in various roles, including as Director of the NIST Center for Neutron Research between 2004 and 2008, and as NIST Director and Undersecretary of Commerce for Standards and Technology between 2009 and 2014. Between 2013 and 2014 he was concurrently acting as Deputy Secretary of Commerce. Dr. Gallagher has served on many independent boards, including for the American Association of Universities, the Association of Public and Land grant Universities, and Internet2. He has also served on the National Commission on Forensic Science (co-chair, 2014) and the National Commission on Enhancing Cybersecurity (2014). He has a doctorate in Physics from the University of Pittsburgh. He has previously served on several NAS boards and committees, including as co-chair of the Committee on Protecting Critical Technologies for National Security in an Era of Openness and Competition, as a member of Committee for an Assessment of and Outlook for New Materials Synthesis and Growth, Board on Physics and Astronomy (2007-2009), and the Neutrino Facility Advisory Committee (2002-2003).

John C. Gannon* is the former Chairman of the National Intelligence Council. He is currently an adjunct professor in the graduate Security Studies Program at Georgetown University. He served in numerous positions at the Central Intelligence Agency, including as Director of European Analysis, as Deputy Director for Intelligence, Assistant Director of Central Intelligence for Analysis and Production, and as Chairman of the National Intelligence Council. After his retirement from CIA in 2001, he served in the White House as the head of the intelligence team standing up the Department of Homeland Security and later on the Hill as the Staff Director of the House Select Committee on Homeland Security. He retired from the UK-owned BAE Systems in 2012 as President of the $1.7-billion Intelligence and Security Sector, which supported intelligence, defense, and homeland-security missions. In 2014-15, he was the Executive Director of the Congressionally-directed 9/11 Review Commission of the FBI. He earned his BA in psychology at Holy Cross College, and his MA and PhD in history at Washington University in St. Louis. Gannon is a member of Council on Foreign Relations, and the Board of Directors of Voices of September 11th. He has served on numerous committees of the National Academies.

Diana Gehlhaus is the Director for Economy at the Special Competitive Studies Project. Diana was a Research Fellow at the Center for Security and Emerging Technology and the Senior Advisor for Talent in the Chief Digital and Artificial Intelligence Office at the U.S. Department of Defense under an Interdepartmental Personnel Act agreement with CSET. Previously, she was a doctoral fellow at the RAND Corporation, receiving her PhD in Policy Analysis from the Pardee RAND Graduate School. Diana's research focuses on the intersection of tech and talent, including domestic talent pipelines in AI and other emerging technologies; workforce development and education policy; youth career and educational decision making; trends in employer hiring, recruiting, and retention; military and federal civilian talent management; and technology and telecommunications policy. Prior to RAND she was an economist and director of the Young American Prosperity Project at the Progressive Policy Institute, a policy analyst at the U.S. Export-Import Bank and an Economist for the Bureau of Labor Statistics. She

has an M.A. in applied economics from Johns Hopkins University and a B.A. in mathematics and economics from Bucknell University. Diana's media appearances include CNBC, Comcast Newsmakers, Wisconsin Public Radio, Nevada Public Radio and the Richard Fowler Show. Her research and commentary have been featured in The Hill, USA Today, Fortune, Washington Post and the Harvard Business Review blog, among other outlets.

Susan Gordon is the former Principal Deputy Director of National Intelligence, serving from 2017-2019, where she advised the President on intelligence matters and provided operational leadership of the agencies and organizations of the Intelligence Community (IC). She is a widely respected authority on risk management, technical innovation, and cyber and space issues. Today, she is an active board member, university fellow, and advises private companies in the areas of technology, strategy, and leadership. Throughout Ms. Gordon's more than three decades in the IC, she led large scale organizational change and delivered revolutionary outcomes. Ms. Gordon worked to adapt the IC to emerging economic, military, and political trends impacting the current operating environment. Ms. Gordon led the establishment of In-Q-Tel, the Central Intelligence Agency's venture arm, in the 1990s. In the last several years, she focused on advancing intelligence integration across the IC, expanding outreach and partnerships to the private sector and international allies, and driving innovation across the Community. While serving as Deputy Director of the National Geospatial-Intelligence Agency (NGA) from 2015 to 2017, Ms. Gordon helped lead NGA through a transformation to adapt to emergent challenges. In this role, she spearheaded agile decision-making, modernization of the information environment, and the expansion of geospatial intelligence services to the open marketplace. Ms. Gordon joined the Central Intelligence Agency in 1980 and served for 29 years, rising to senior executive positions in each of the Agency's four directorates: operations, analysis, science and technology, and support. Ms. Gordon holds a Bachelor of Science from Duke University.

Nobert Holtkamp has a joint appointment at Stanford University as both a Science Fellow at the Hoover Institution and Professor of Particle and Particle Astro Physics and Photon Science at SLAC National Accelerator Laboratory. He provides support in growing SLAC's portfolio with Department of Energy (DOE) and the private sector and focuses on what the "Future of International Science Collaborations" could look like as part of the Technology, Economics and Governance Working Group at the Hoover Institution. He was SLAC's Deputy Laboratory Director from 2014 to 2022 and led the conception and implementation of the multi-laboratory partnerships of several DOE and DOE/National Science Foundation (NSF) projects. Since 2019 he also led SLAC's $1.1B LCLS-II Free Electron Laser construction project, built by 5 US national laboratories, which transitioned to operation in September 2023. He managed the laboratories' overall risk portfolio which included more than $2.5B worth of construction on the SLAC site. When joining SLAC in November of 2010 he began as the Associate Laboratory Director for the Accelerator Directorate In 2006, he was nominated Principal Deputy Director of the ITER organization. ITER, an international organization in the South of France, includes seven members, EURATOM as part of the European Commission, China, India, Japan, Korea, Russia and the USA, and comprises a construction project worth more than 20 billion Euro. From 2001 to 2006, he served as the director of the Accelerator Systems Division for the $1.4B Spallation Neutron Source at Oak Ridge National Laboratory, which still is the world's most powerful pulsed neutron source built by a collaboration of 6 DOE national laboratories. He held various leadership positions on a variety of US and international science infrastructure projects at Fermi National Accelerator Lab in Chicago (US) and DESY in Hamburg (Germany). He has an M.S. equivalent degree in physics from the University of Berlin and a

Ph.D. in physics from the Technical University in Darmstadt, Germany. His interests include science applications, technology transfer, and the value and future of international science collaborations. In June 2008, he received the Gersh Budker prize of the European Physical Society.

Rebecca Spyke Keiser*, PhD, is Chief of Research Security Strategy and Policy at the National Science Foundation (NSF). She has served as head of OISE since coming to NSF in 2015. The office promotes an integrated, international strategy and manages internally focused programs that are innovative, catalytic and responsive to a broad range of NSF and national interests. Keiser is the first CRSSP, a position established in March 2020 to ensure the security of federally funded research while maintaining open international collaboration. In this role, Keiser provides the NSF director with policy advice on all aspects of research security strategy. She also leads NSF's efforts to develop and implement efforts to improve research security and the agency's coordination with other federal agencies and the White House.

Harriet Kung* is the Deputy Director for Science Programs in the Office of Science at the U.S. Department of Energy. As Deputy Director for Science Programs, Dr. Kung is the senior career official providing scientific and management direction and oversight for the SC research programs, including Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, and Nuclear Physics, as well as other supporting functions and offices. Dr. Kung served in various leadership roles in Basic Energy Sciences, the largest program in Office of Science, from 2002 - 2020. Before joining DOE in 2002, Dr. Kung was a technical staff member and a project leader at Los Alamos National Laboratory. Her research focused primarily on nanoscale materials and high temperature superconductivity. With over 20 years of service in the Department of Energy, Dr. Kung led and cultivated one of the Nation's premier physical sciences programs. During her tenure, she developed a new basic research paradigm in team-science approach to advance DOE's science and energy missions by spearheading a decade-long strategic planning initiative to assure timely, science-based solutions. She also positioned the Office of Science as a National Quantum Initiative leader by establishing strategies to capitalize on strong synergy between disciplines such as physics, biology, materials, and engineering, as well as the world-leading scientific user facilities. She has chaired and co-chaired high-level interagency working groups to develop and implement national science priorities. Dr. Kung received her M.S. and Ph.D. degrees from Cornell University. She is the recipient of numerous awards including the Presidential Meritorious Executive Rank Award in 2009 and the Distinguished Executive Rank Award in 2022.

Thomas E. "Thom" Mason* has served as the Director of Los Alamos National Laboratory since November 2018. Previously he was the Senior Vice President for Global Laboratory Operations at Battelle where he had responsibility for governance and strategy across the six National Laboratories that Battelle manages or co-manages. Prior to joining Battelle, Thom worked at Oak Ridge National Laboratory (ORNL) for 19 years, including 10 years as the Laboratory Director. Under his leadership, ORNL saw significant growth in programs, new facilities, and hiring while achieving record low safety incident rates. Before becoming Laboratory Director, he was Associate Laboratory Director (ALD) for Neutron Sciences, ALD for the Spallation Neutron Source, and Director of the Experimental Facilities Division. During his time in Oak Ridge, Thom was active in the community serving as Chair of the Oak Ridge Public Schools Education Foundation as well as Innovation Valley, the Knoxville-Oak Ridge area regional economic development organization. He moved to ORNL from the University of Toronto where he was a faculty member in the Department of Physics and previously worked as a Senior Scientist at

Risø National Laboratory and a Postdoc at AT&T Bell Laboratories. For the past 30 years, he has been involved in the design and construction of scientific instrumentation and facilities and the application of nuclear, computing, and materials sciences to solve important challenges in energy and national security. Thom has a PhD in Experimental Condensed Matter Physics from McMaster University and a BSc in Physics from Dalhousie University.

J. Michael McQuade* is Carnegie Mellon University's Vice President for Research, providing leadership for the University's research enterprise and advocating for the role that science, technology and innovation play nationally and globally. From 2006 to 2018 he served as Senior Vice President for Science & Technology at United Technologies Corporation, where he provided strategic oversight and guidance for research, engineering and development activities that focused on a broad range of high-technology products and services for the global aerospace and building systems industries. Dr. McQuade held senior positions with technology development and business oversight at 3M, Imation and Eastman Kodak. He served as Vice President of 3M's Medical Division and President of Eastman Kodak's Health Imaging Business. He has broad experience managing basic technology development and the conversion of early stage research into business growth. Dr. McQuade holds Ph.D., M.S. and B.S. degrees in physics from Carnegie Mellon University. He served as a member of the President's Council of Advisors on Science and Technology and of the Secretary of Energy Advisory Board and is a member of the Defense Innovation Board.

Richard A. Meserve*, JD, PhD, is President Emeritus of the Carnegie Institution for Science. He is also Senior of Counsel at the law firm of Covington & Burling LLP. Before assuming the Carnegie presidency in April 2003, he was Chairman of the U.S. Nuclear Regulatory Commission, having served since October 1999. He currently serves as Chairman of the International Nuclear Safety Group, chartered by the International Atomic Energy Agency. Early in his career, he served as legal counsel to the President's science advisor, and was a law clerk to Justice Harry A. Blackmun of the United States Supreme Court and to Judge Benjamin Kaplan of the Massachusetts Supreme Judicial Court. Dr. Meserve received a B.A. from Tufts University, a J.D. from Harvard Law School, and a Ph.D. in applied physics from Stanford University. He is a member of the National Academy of Engineering and has previously served on numerous committees and boards of the National Academies.

Kathryn A. Moler* is the Vice Provost and Dean of Research, the Marvin Chodorow Professor, and Professor of Applied Physics and of Physics at Stanford University. She conducts research in magnetic imaging, develops tools that measure nanoscale magnetic fields, and studies quantum materials and devices. Among other honors, she received a national Presidential Early Career Award for Scientists and Engineers, held a Packard Fellowship for Science and Engineering, received the William L. McMillan Award "for her fundamental studies of the superconducting pairing state, Josephson vortices, and the role of interlayer coupling in high-temperature superconductors," and was elected a Fellow of the American Physical Society. To honor her sustained commitment to teaching, the American Association of Physics Teachers awarded her the Richtmyer Award for Outstanding Leadership in Physics Education, and Stanford appointed her as the Sapp Family Fellow in Undergraduate Education. She was previously the Senior Associate Dean of Natural Sciences in the School of Humanities and Sciences and the Director of the Stanford Nano Shared Facilities. She is a member of the NanoFront (TU-Delft/Leiden) Scientific Advisory Board and the Physics Frontier Center—Joint Quantum Institute Advisory Board.

Jill Murphy began her career with the Federal Bureau of Investigations (FBI) in 2002. Assignments at her first field office, FBI San Francisco, included investigations of Asian Organized Crime. Within several years, she transferred to the Joint Terrorism Task Force to focus on the fight against al-Qa'ida and its affiliates. Her counterterrorism efforts included deployments to Iraq, Yemen, Indonesia, Algeria, Tanzania, and the Philippines. In 2010, Ms. Murphy transitioned to China counterintelligence at FBI Headquarters. From 2014- 2016, she served on the National Security Council as the Director of Counterintelligence, coordinating counterintelligence policy and operations. In 2016, Ms. Murphy transferred to the San Antonio Field Office, Austin Resident Agency, and led a Counterintelligence team focused on innovation, emerging tech, outreach and partnerships. During her tenure, Ms. Murphy built a strong relationship with Army Futures Command. As an Assistant Special Agent in Charge for the FBI Baltimore Field Office, in 2018, Ms. Murphy provided key leadership to the CI, Cyber, Technical, and Surveillance programs. Most recently as the CIA's Chief of Counterespionage, Ms. Murphy strengthened the operational relationship between the CIA and FBI, while protecting U.S. Government equities.

Bindu Nair* is Director for Basic Research at the U.S. Department of Defense, within the Office of the Secretary of Defense (OSD). In this role, she is responsible for oversight and coordination of the Department's $2.2 billion investment in basic science. This investment supports high risk and high pay-off basic research projects in fields including physical science, life science, environmental science, applied mathematics, and others that probe the limits of today's technologies and discover new phenomena and know-how that may ultimately lead to future technologies for the Department. Prior to her assignment to OSD, Dr. Nair worked for the Department of the Army with oversight responsibilities over the science and technology program in power and energy. She has worked in the DoD laboratory system at Natick Soldier Research, Development and Engineering Center as well as in private industry at Foster Miller (Waltham, MA). Her research expertise is in the field of Material Science and Engineering including nanomaterials, polymers, and organic electronic materials, and she has taught graduate level courses in Polymer Synthesis. She has published primarily in membrane and materials development fields and holds patents in fuel cell technologies. Dr. Nair holds a B.Sc from the University of Florida and a Ph.D. from the Massachusetts Institute of Technology in Materials Science and Engineering.

Anna Puglisi* is currently the CEO and Founder of a boutique consulting firm that helps governments, companies and research entities secure their technology and personnel. Anna also serves as a Senior Advisor to the National Security Commission on Emerging Biotechnology and adjunct Faculty at Georgetown University. Previously she was a Senior Fellow at Georgetown's Center for Security and Emerging Technology (CSET) where she focused on S&T policy development and global technology competition, and the National Counterintelligence Officer for East Asia, advising senior U.S. and foreign government officials at the highest levels, academia and the private sector on counterintelligence (CI) issues including research security. She has played a prominent role in drafting U.S. national S&T strategies and in designing mitigation strategies for both the public and private sectors to protect technology. She has received numerous awards including the FBI Director's Award for Excellence. Anna holds an MPA, an MS in environmental science and a BA in Biology with honors, all from Indiana University. She studied at the Princeton in Beijing Chinese language school and was a visiting scholar in Nankai University's Department of Economics, where she studied China's S&T policies, infrastructure development and university reforms. She is a co-author of the 2013 study Chinese Industrial Espionage,

the first book-length treatment of the topic, as well as countless related proprietary studies. She is proficient in Mandarin Chinese.

John Sarrao became SLAC National Accelerator Laboratory's sixth director in October 2023. He came to SLAC from Los Alamos National Laboratory (LANL) in New Mexico, where he served as the deputy director for science, technology and engineering. In that role he led multiple directorates, including chemistry, earth and life sciences, global security, physical sciences, and simulation and computation. He also stewarded technology transitions and served as LANL's chief research officer in support of its national security mission. Before becoming deputy director, he also served as associate director for theory, simulation and computation and division leader for materials physics and applications at LANL. Sarrao's scientific research focus is superconductivity in materials. He studies the synthesis and characterization of correlated electron systems, especially actinide materials. He won the 2013 Department of Energy's E.O. Lawrence Award and is a fellow of the American Association for the Advancement of Science, the American Physical Society and Los Alamos National Laboratory. Sarrao's research and technical leadership has emphasized national security science, from plutonium physics research to advanced materials design and discovery and stewardship of high-performance computing resources and simulation capabilities. Sarrao received his PhD and master's degree in physics from the University of California, Los Angeles, and a bachelor's degree in physics from Stanford University.

Toby Smith, oversees matters related to science and innovation policy, broader impacts of science, and Association of American Universities' (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 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; is a member of the Council of Experts for the NSF sponsored Center for Advancing Research Impact in Society; and is co-chair of Engaging Scientists in Engineers in Policy, 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 the American Association for the Advancement of Science (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. Toby holds a Master's degree in Legislative Affairs from George Washington University, and a Bachelor's degree in General Studies from the University of Michigan.

Patricia Valdez, is a Health Science Policy Analyst at the National Institutes of Health (NIH) and serves as the Extramural Research Integrity Officer in the NIH Office of Extramural Research (OER). In this position, she serves as a liaison between the NIH and the HHS Office of Research Integrity and handles allegations of research misconduct in NIH-funded extramural activities. For the past two- and one-half years, she has been involved in the implementation of updates to NIH grant applications and review language aimed at enhancing the reproducibility of biomedical science through rigor and transparency. Dr. Valdez received her Ph.D. in Molecular and Cell Biology from the University of California, Berkeley

and carried out her postdoctoral training in Immunology Discovery at Genentech. She then joined the NIH as an Intramural Staff Scientist in the NIAID Laboratory of Clinical Infectious Disease. Prior to joining OER, Dr. Valdez served as the Manager of Publication Ethics for the American Society for Biochemistry and Molecular Biology.

Maria T. Zuber* is the E. A. Griswold Professor of Geophysics and presidential advisor for science and technology policy at MIT, tracking trends and seizing opportunities to inform and advance enlightened state and federal policy. She also provides strategic direction to campus labs, centers, and initiatives connected to defense or national security and represents MIT with external stakeholders. Zuber served as vice president for research from 2013 to 2024, and was responsible for research administration and policy, research relationships with the federal government, and oversight of MIT Lincoln Laboratory and more than a dozen interdisciplinary research laboratories and centers. In that role, she led the team that developed and provided oversight for MIT's Climate Action Plan. Zuber's research bridges planetary geophysics and the technology of space-based laser and radio systems. Since 1990, she has held leadership roles associated with scientific experiments or instrumentation on ten NASA missions, most notably serving as principal investigator of the Gravity Recovery and Interior Laboratory (GRAIL) mission. Zuber currently serves as Chair of the Standing Review Board of NASA's Mars Sample Return mission. Zuber holds a B.A. from the University of Pennsylvania and an Sc.M. and Ph.D. from Brown. She has won numerous awards, including the MIT James R. Killian Jr. Faculty Achievement Award, the highest honor the MIT faculty bestows to one of its own. She is a member of the National Academy of Sciences and the American Philosophical Society, and is a fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, the Geological Society, and the American Geophysical Union. In 2019, she was awarded the Gerard P. Kuiper Prize by the Division for Planetary Sciences of the American Astronomical Society. Zuber is the first woman to lead a science department at MIT and the first to lead a NASA planetary mission. In 2013, President Obama appointed her to the National Science Board, and in 2018 she was reappointed by President Trump. She served as Board Chair from 2016-2018. In 2021, President Biden named her as co-chair of the President's Council of Advisors on Science and Technology.

*** Member, National Science, Technology, and Security Roundtable**