NATIONAL ACADEMIES *Sciences Engineering Medicine*

**Assessing Research Security Efforts in Higher Education
A Meeting of Experts**

National Academy of Sciences Building
Room 125
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Washington, DC 20418

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SPEAKER BIOGRAPHIES

Deanna D. Caputo is Chief Scientist for Insider Threat Capabilities and Senior Principal Behavioral Psychologist at the MITRE Corporation, applying deep expertise in the behavioral sciences to insider risk and threat efforts in government and critical infrastructure industries, including higher education. Deanna is an internationally recognized expert in insider threat, and the intersection of cybersecurity and behavioral science. She has 30 years of experience designing, conducting, and analyzing research with human participants using experimental, quantitative, and qualitative analyses. In 2008 she built and led MITRE's Human Behavior and Cybersecurity capability and team focused on insider risk, usable security/technology adoption, cyber risk perceptions/awareness, and cybersecurity exercise assessment.

Caputo built and now leads MITRE's Insider Threat Research and Solutions Capability and multi-disciplinary team. She created and pioneered development of Insider Threat applied research with 20 IP disclosures, and an air-gapped, secure MITRE Insider Threat Lab. She uses behavioral methodologies and analytics to reduce insider threats by analyzing how human behavior manifests in human, organizational, and cyber sensors, and developing solutions to identify and change employee attitudes, intentions, and/or behaviors. Caputo holds a bachelor's in psychology from Santa Clara University and doctorate in social and personality psychology from Cornell University.

Tam Dao serves as the Assistant Vice President (AVP) for Research Security at Rice University, where he is responsible for formulating and executing the institution's strategy for research security. His role involves collaborating with faculty, staff, and students across the university to protect the intellectual property, knowledge, and outcomes originating from Rice University's research endeavors against both foreign and domestic threats. Additionally, he acts as the primary liaison for law enforcement and intelligence agencies seeking involvement or assistance from Rice University.

Before joining Rice University, Dao held various positions at the Federal Bureau of Investigation (FBI). In 2020, he was promoted to oversee the FBI's Counterintelligence Task Force, leading initiatives to expose, prevent, and investigate economic espionage. He has conducted over 300 classified briefings for senior White House staff, members of Congress, heads of U.S. federal funding agencies, and university administrators. His 2014 investigation into malign foreign talent programs resulted in the identification of over 400 instances of foreign influence on extramural research and the recognition of more than 200 scientists at more than 65 academic

institutions with foreign influence concerns. Dao is widely acknowledged as a subject matter expert on research security, economic espionage, and foreign influence on federally-funded research. He is also a certified FBI Hostage Negotiator and regularly instructs at the FBI's Crisis Negotiation Unit and the FBI's Counterintelligence Training Center. In 2021, he was honored with the FBI's Medal of Excellence for his contributions to counterintelligence.

Prior to his tenure at the FBI, Dao held a tenure-track professorship at the University of Houston. He is the recipient of the Walter G. Klopfer Award for distinguished contributions to the literature in personality assessment and the University of Houston Faculty Research Excellence Award for outstanding research and scholarship. Dao has received federal and state grants for his research and has authored over 50 scientific articles and book chapters on personality assessment. He holds a bachelor's degree in psychology from the University of Texas at Austin, a master's from the University of Pennsylvania, and a doctorate from Florida State University. He also completed a postdoctoral fellowship in advanced psychology and psychiatry at the Michael E. DeBakey Veterans Affairs Medical Center in Houston.

The Honorable **Christine Fox** is a Senior Fellow at the Johns Hopkins University Applied Physics Laboratory. She also serves on many governance and advisory boards for both government and private industry including the National Infrastructure Advisory Board, the Strategic Competitive Studies Project, the Atlantic Council, and Palantir Technologies. Previously, she was the Assistant Director for Policy and Analysis at JHU/APL, a position she held from 2014 to early 2022. Before joining APL, Fox served as Acting Deputy Secretary of Defense from 2013 to 2014 and as Director of Cost Assessment and Program Evaluation (CAPE) from 2009-2013. As Director, CAPE, Fox served as chief analyst to the Secretary of Defense. Prior to her DoD positions, she served as president of the Center for Naval Analyses from 2005 to 2009, after working there as a research analyst and manager since 1981. Fox holds a bachelor and Master of Science degree from George Mason University.

Kristopher E. Gardner is the Director for Science and Technology (S&T) Protection in the S&T Program Protection office in the Office of the Under Secretary of Defense for Research and Engineering. Gardner is responsible for developing options for protecting emerging S&T to maintain U.S. Department of Defense (DoD) technical advantage. He generates DoD S&T protection policy and ensures its consistent implementation across the Department. Prior to his current role, Gardner served as the Director for Army S&T Special Programs and Intelligence, where he was responsible for integrating Army S&T Enterprise research and development (R&D) activities with the Intelligence Community. Gardner also served as the Acting Director for Research and Technology (R&T) in the office of the Deputy Assistant Secretary of the Army for R&T, where he was the principal planner, advisor, and top-level coordinator for the Army S&T program. He oversaw the development and defense of the Army's Applied Research and Advanced Technology Development investment strategies, prioritization, integration, program justification, and coordination with users. He also managed the S&T Special Access Programs, Technology Maturation Initiative (competitive prototyping), and Manufacturing Technology investments. Gardner's Army S&T experience also includes his service as Director for the Command, Control, Communications and Intelligence (C3I) S&T Portfolio, providing oversight of Army S&T efforts for C3I systems including communications, mission command, electronic warfare, cyber, and intelligence-related information and materiel needs to enable planning and operation by Army forces. Additionally, Gardner previously worked in the Office of the Assistant Secretary of Defense for Research and Engineering (R&E) as Director of the Office of Technical Intelligence. In this role, he identified emerging and potentially disruptive S&T, recommended efficient R&D strategies, and coordinated intelligence collection, analysis, and dissemination plans to inform R&E activities.

Gardner holds a Bachelor of Science (B.S.) in Chemical Engineering from the University of Virginia. He is an Eagle Scout and Assistant Scoutmaster for two Scouts' BSA Troops.

Mark Haselkorn, Ph.D., is a professor in the Department of Human Centered Design & Engineering at the University of Washington (UW). He is Director of the College of Engineering's Center on Collaborative Systems

for Security, Safety & Regional Resilience (CoSSaR) and a long-time leader of projects that help government agencies and non-governmental organizations understand, develop, and deploy complex systems to increase collaboration and interoperability for information sharing and coordinated activities. His current role is Director of Safeguarding the Entire Community in the U.S. Research Ecosystem (SECURE), an National Science Foundation (NSF) Center which connects and empowers the U.S. research community to better protect the value produced by federally funded research. The national SECURE Center at UW partners with experts from more than a dozen organizations, organized into five regional centers, in addressing critical issues related to research security and integrity.

Previously, Haselkorn led the Virtual Coordination Center for Multimodal Integrated Corridor Management Project (VCC) funded by the U.S. and Washington State Departments of Transportation. VCC has deployed a cloud-based environment that enables regional transportation stakeholders to share a common working environment in support of coordinated mobility management. Other projects led by Dr. Haselkorn include the CANUS Maritime Information Sharing Pilot Project, Project Interoperability in Puget Sound (PIPS), and the Maritime Operations Information Sharing (MOISA) project. These projects, focused on enhancing information sharing for regional maritime safety and security, were sponsored by the U.S. Department of Homeland Security (Coast Guard, Customs and Border Protection, Border Security, and First Responders), the Program Manager for the Information Sharing Environment (PM-ISE), and the National Maritime Intelligence-Integration Office (NMIO).

Haselkorn has also conducted research on disaster preparedness messaging for the Red Cross Global Disaster Preparedness Center. He previously led an NSF initiative to define the emerging frontier of "Humanitarian Service Science & Engineering." He has worked with the military on several projects, including the integration of U.S. Department of Defense and Department of Veterans Affairs electronic medical records and the Air Force's strategic management of ICT under the threat of Y2K (a study published by the National Research Council). Haselkorn has also conducted foundational research in intelligent transportation systems, including development of the first Web-based real-time traveler information system (Traffic Reporter, 1990).

Amanda Humphrey is Co-Director, SECURE and Chief Research Operations Officer for Northeastern University. Humphrey oversees the research security, export compliance, and training programs, as well as contributing to compliance and operational objectives for the university. Humphrey is an active member of the Federal Demonstration Partnership (FDP), National Council of University Research Administrators (NCURA), and the Council of Governmental Relations (COGR). She received an NCURA Global Fellowship in 2019 and visited Aalto University in Finland. Humphrey holds the designation of Certified Research Administrator. She has degrees from Smith College, University College London, and Northeastern University, where she worked full-time while completing her Master of Business Administration.

Benjamin F. Jones, Ph.D., M.Phil., is the Gordon and Llura Gund Family Professor of Entrepreneurship and a Professor of Strategy at Northwestern Kellogg School of Management. An economist by training, Jones studies the sources of economic growth in advanced economies, with an emphasis on innovation, entrepreneurship, and scientific progress. He also studies global economic development, including the roles of education, climate, and national leadership in explaining the wealth and poverty of nations. His research has appeared in journals such as *Science*, the *Quarterly Journal of Economics,* and the *American Economic Review* and has been profiled in media outlets such as the *Wall Street Journal*, the *Economist*, and *The New Yorker*.

A former Rhodes Scholar, Jones served in 2010-2011 as the senior economist for macroeconomics for the White House Council of Economic Advisers and earlier served in the U.S. Department of the Treasury.

Jones is a non-resident senior fellow of the Brookings Institution, a research associate of the National Bureau of Economic Research (NBER), where he co-directs the Innovation Policy Working Group, a senior fellow of the Institute for Progress, and a member of the Council on Foreign Relations (COGR).

Bruce A. Jones is the senior Vice President for Research at Howard University. Jones holds more than 30 years of academic and administrative experience in higher education and the nonprofit sector. Over the course of his career, he has held two Endowed Chair Professorships. As the Ewing Marion Kauffman Endowed Chair for Teaching and Leadership at the University of Missouri he engaged in statewide research on best leadership practices in education reform in partnership with the Missouri State Department of Education, Ewing Marion Kauffman Foundation and the Danforth Foundation. At the University of Missouri System level, Jones founded and led the Consortium for Educational Policy Analysis (CEPA), which was housed on three campuses of the University of Missouri System. Through his research at CEPA and with the support of the Peter Herschend Foundation, Ewing Marion Kauffman Foundation, the Hall Family Foundation and the Danforth Foundation, he launched Missouri's first statewide comprehensive assessment of student achievement. At the University of South Florida (USF), Jones served as the David C. Anchin Endowed Professor of Education and Director of the David C. Anchin Center. Under his leadership the external grant portfolio of the David C. Anchin Center grew from an estimated $625,000 when he arrived at USF to a record high of more than $30 million. Jones also served as the Associate Dean for Research in the College of Education. At the University of Houston (main campus), Jones served as Professor and Vice Provost for Academic Programs and Dean of the Graduate School. Prior to joining the academy, Jones worked extensively with philanthropic institutions on program funding strategies, strategic planning, evaluation and executive/board decision-making. Jones currently serves on the board of the Northern Israel Center for the Arts and Technology and has served on the boards of Family Services America; the Alliance for Children and Families; the National Association of Partners in Education and the National Policy Board in Educational Administration. Jones holds a Ph.D. in Political Science from Columbia University in New York City.

Rebecca Spyke Keiser is the Chief of Research Security Strategy and Policy (CRSSP) at the National Science Foundation (NSF).

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.

Until March 2020, Keiser was the head of the Office of International Science & Engineering (OISE) at NSF. Keiser had served as head of OISE since coming to NSF in 2015.

Susan A. Martinis is Vice Chancellor for Research and Innovation at the University of Illinois at Urbana-Champaign, where she provides leadership for the campus-wide interdisciplinary research institutes, promotes new research initiatives, and oversees the administrative and business processes that ensure the safe, ethical, and productive conduct of research at Illinois.

Martinis, the Stephen G. Sligar Professor of Molecular and Cellular Biology and Professor of Biochemistry, studies the mechanisms, evolution, and biomedical applications of protein synthesis and RNA-protein interactions. She is a successful researcher, engaged in entrepreneurial activities and corporate partnerships; a committed educator; and an experienced administrator.

Dewey Murdick is the Executive Director at Georgetown University's Center for Security and Emerging Technology, where he oversees daily operations and strategic initiatives. Previously, he served as Director of Science Analytics at the Chan Zuckerberg Initiative, Deputy Chief Scientist at the Department of Homeland Security, and Co-Director of the Anticipating Surprise Office/Program Manager at the Intelligence Advanced Research Projects Activity.

Murdick's experience in the public, private, and academic sectors spans artificial intelligence policy, emerging technology analysis, data science, machine learning application development, technology foresight, and

research and development portfolio oversight. He pioneered work in anticipatory intelligence via high-risk, high-payoff research programs supporting national security missions. His work has directly informed U.S. and international policymakers on critical technology issues.

Murdick's contributions have been recognized with multiple honors, including the DHS Under Secretary's Award for Outstanding Collaboration, the ODNI Exceptional Achievement Award, and the Distinguished Analysis Award for Excellence in Intelligence Community Collaboration.

Murdick holds a Ph.D. in Engineering Physics from the University of Virginia and a B.S. in Physics from Andrews University.

Lisa Nichols is Executive Director, Research Security, at the University of Notre Dame where she has oversight for research and information security, export controls, and conflict of interest. She previously held roles at the University of Michigan, National Institutes of Health, National Science Foundation, the White House Office of Science and Technology Policy (OSTP) and the Council on Governmental Relations (COGR). At COGR she engaged with federal agencies on research security concerns on behalf of institutions of higher education and at OSTP, in the development of National Security Presidential Memorandum-33. She served as Principal Investigator on an NSF cooperative agreement to develop research security training for the U.S. research community and currently serves as PI on a SECURE (Safeguarding the Entire Community in the U.S. Research Environment) Center subaward to develop research security resources using a community centered approach. Nichols holds a Ph.D. in neuroscience from Purdue University and is a former American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow.

Lori Ann Schultz is the Assistant Vice President for Research Administration at Colorado State University and Co-Director of the NSF SECURE Center Southwest Region. She has worked in research administration for over 30 years, and supports faculty researchers through policy, process, research security, and a host of topics related to external funding. She works on evidence-based policies, marshaling research data in the service of the institution and the faculty who do research, and using data to forecast and plan strategies for a resilient future for research. Schultz has conducted presentations and training on research, data, and technology topics at the Association of American Universities, Association of Public and Land-grant Universities, National Council of University Research Administrators (NCURA), Society of Research Administrators International, the Federal Demonstration Partnership, the Council on Governmental Relations (COGR), and Educause. She is on the Board of Directors of ORCID, COGR, and NCURA. Lori has many years of experience in research, software development, non-profit board leadership, and data management and analysis. She has a particular passion for using data to improve the working lives of the researchers who help us understand the world.

Daniel B. Schwab, is a Senior Advisor for International Policy & Programs in the U.S. Department of Energy's Office of Science. In this role, he addresses research security risks and supports the development of related policy for Office of Science investments in financial assistance and the National Laboratories. Previously, Dr. Schwab served as an AAAS Science and Technology Policy Fellow at the Department of Defense Basic Research Office and as an Embassy Science Fellow at the U.S. Embassy in Tokyo. With over ten years of experience as a researcher, he holds a Ph.D. in Evolution, Ecology, and Behavior from Indiana University, Bloomington and a B.S. in Biology from the College of William & Mary.

David Tillery is the Director of Technology Protection & Research Security (TPARS) effort for the Department of Homeland Security (DHS). Tillery assumed this role in February 2025 with the goal of bringing DHS into compliance with NSPM-33 and securing our country's technological advancements and research activities. Tillery employs a forward leaning approach to streamlining workflows and generating efficiencies through artificial intelligence/machine learning initiatives.

Prior to assuming this role, Tillery supported DHS for 14+ years in a variety of roles, leveraging his expertise, critical thinking, and creativity to find innovative solutions to everyday problems. He Tillery holds a Master of

Business Administration from the University of Maryland's Robert H. Smith School of Business.

Patricia Valdez is Chief Extramural Research Integrity Officer at the National Institutes of Health (NIH) 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 several 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. 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 National Institute of Allergy and Infectious Diseases (NIAID) Laboratory of Clinical Infectious Disease. Prior to joining OER, Valdez served as the Manager of Publication Ethics for the American Society for Biochemistry and Molecular Biology.