

*The National Academies of*  
**SCIENCES • ENGINEERING • MEDICINE**

**Protecting Critical Technologies for National Security in an Era of Openness and Competition**  
**Meeting #6**

**Speaker Biographies**  
**August 10, 2021**

Dr. **Gerald Epstein** is a Distinguished Research Fellow with the Center for the Study of Weapons of Mass Destruction at National Defense University. He works at the intersection of science, technology, and security policy, particularly concerning the governance and security implications of advanced life sciences, biotechnologies, and other emerging and converging technologies. Previously, he served at the White House Office of Science and Technology (OSTP) as Assistant Director for Biosecurity and Emerging Technologies, a position he held on detail from his Department of Homeland Security (DHS) appointment as Deputy Assistant Secretary for Chemical, Biological, Radiological, and Nuclear Policy. Before joining DHS, Dr. Epstein had held positions with the American Association for the Advancement of Science, the Center for Strategic and International Studies, the Institute for Defense Analyses, and the Congressional Office of Technology Assessment. He directed a project on the relationship between military and commercial technologies at Harvard University, and he has taught at Princeton and Georgetown Universities. In a prior White House appointment he served jointly as Assistant OSTP Director for National Security and Senior Director for Science and Technology on the National Security Council staff. Dr. Epstein's first position in government was with the late Congressional Office of Technology Assessment, where he worked on technical and policy analyses of ballistic missile defense, antisatellite arms control, the defense technology base, fusion energy, and the proliferation of weapons of mass destruction. He holds S.B. degrees in physics and in electrical engineering from the Massachusetts Institute of Technology, and M.S. and Ph.D. degrees in physics from the University of California at Berkeley.

**Jason Matheny**, Ph.D., is Deputy Director for National Security and International Affairs at the White House Office of Science and Technology Policy. He has served on various White House committees related to artificial intelligence, biosecurity, high-performance computing, and quantum information science. He co-led the National AI R&D Strategic Plan released by the White House in 2016 and was a member of the White House Select Committee on AI, created in 2018. He holds a Ph.D. in applied economics from Johns Hopkins University, an M.P.H. from Johns Hopkins University, an M.B.A. from Duke University and a B.A. from the University of Chicago.

Dr. **Carl E. McCants** is a special assistant to the DARPA director, focusing on the Microsystems Technology Office's (MTO) Electronics Resurgence Initiative (ERI) and the National Network for Microelectronics Research and Development. Prior to his role at DARPA, he was the technical director of the Supply Chain and Cyber Directorate of the National Counterintelligence and Security Center (NCSC), in the Office of the Director of National Intelligence. McCants provided scientific and technical input and briefed senior government leaders on national-level supply chain integrity issues. He also provided subject matter expertise on microelectronics-related supply chain concerns.

From 2012 to 2018, McCants was a senior program manager at the Intelligence Advanced Research Projects Activity (IARPA), managing the Rapid Analysis of Various Emerging Nanoelectronics (RAVEN) program, the Trusted Integrated Chips (TIC) program, and the Circuit Analysis Tools (CAT) program. His IARPA programs earned him the Intelligence Community's Science & Technology Individual Contributor Award for FY2016.

From 2010 to 2012, he was a program manager in MTO at DARPA, focused on microelectronic integration and hardware assurance and reliability. From 2003 to 2009, he was an associate at Booz Allen Hamilton, where he served as the chief technologist to the director of MTO, and special assistant to the DARPA deputy director. From 1999 to 2003, McCants was a project manager at Agilent Technologies' Semiconductor Products Group where he was responsible for front-end and back-end optical and electrical characterization of photonic devices, and automated test platform development. From 1988 to 1999, he was a development engineer at Hewlett-Packard's Optical Communication Division, where he focused on materials characterization, wafer fabrication, and photonic measurements of LEDs and lasers. McCants received his bachelor's degree from Duke University in 1981 and his master's and doctoral degrees from Stanford University in 1982 and 1989, respectively, all in electrical engineering. He is a senior member of the IEEE.