



Meeting of the  
President's Council of Advisors on Science and Technology (PCAST)  
September 28-29, 2021

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## Speaker Biographies

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September 28, 2021 (in order of presentation)

### **RICHARD DANZIG, JD PHD**

Former Secretary and former Under Secretary of the Navy, Dr. Richard Danzig is a consultant to U.S. Intelligence Agencies and the Department of Defense (DOD) on national security issues. He is a Senior Fellow at the Johns Hopkins Applied Physics Laboratory, Trustee of the RAND Corporation, Director of the Center for a New American Security, and Director of Saffron Hill Ventures. He has also been Director of National Semiconductor Corporation and Human Genome Sciences Corporation and has served as Chairman of the Board of the Center for a New American Security, Chairman of the Board of the Center for Strategic and Budgetary Assessments, and as Chair of the Advisory Panel for Idaho National Laboratories' Innovation Center. He has been a member of the President's Intelligence Advisory Board, Secretary of Defense's Defense Policy Board, Homeland Security Secretary's Advisory Council, Aspen Strategy Group, Toyota Research Institute Advisory Board, Cyber Resilience Forum of the National Academies of Sciences, Engineering, and Medicine and the Reed College Board of Trustees. Previously, Dr. Danzig was a senior advisor to Senator Obama on national security issues and has served as a law clerk to U.S. Supreme Court Justice Byron White. He has also been a Professor at Stanford Law School, member of the Harvard Society of Fellows, partner in the law firm Latham and Watkins, and a Rockefeller Foundation fellow. He is the author of two books and numerous articles.

### **JONATHAN GRUBER, PHD**

Former Deputy Assistant Secretary for Economic Policy at the Treasury Department, Dr. Jonathan Gruber is the Ford Professor of Economics at the Massachusetts Institute of Technology, where he has taught

since 1992. He is also the former Director of the Health Care Program at the National Bureau of Economic Research and the former President of the American Society of Health Economists. He is a member of the Institute of Medicine, American Academy of Arts and Sciences, National Academy of Social Insurance, and the Econometric Society. In 2006, he received the American Society of Health Economists Inaugural Medal for the best health economist in the nation aged 40 and under. From 2003-2006 he was a key architect of Massachusetts' ambitious health reform effort and became an inaugural member of the Health Connector Board, the main implementing body for that effort. Dr. Gruber served as a technical consultant to the Obama Administration and worked with both the Administration and Congress to help craft the Patient Protection and Affordable Care Act. In 2011 he was named "One of the Top 25 Most Innovative and Practical Thinkers of Our Time" by *Slate Magazine*. In both 2006 and 2012 he was rated as one of the top 100 most powerful people in health care in the United States by *Modern Healthcare Magazine*. He recently received a Guggenheim Fellowship. Dr. Gruber has published more than 180 research articles and edited six research volumes. He authored *Public Finance and Public Policy*, a leading undergraduate text, *Health Care Reform*, a graphic novel, and *Jump-Starting America: How Breakthrough Science Can Revived Economic Growth and the American Dream*.

#### **MARYANN P. FELDMAN, PHD**

Dr. Maryann Feldman is the Heninger Distinguished Professor in the Department of Public Policy at the University of North Carolina and Professor of Finance at the Kenan Flagler School of Business and Senior Fellow at the Frank H. Kenan Institute of Private Enterprise. Dr. Feldman was the winner of the 2013 Global Award for Entrepreneurship Research for her contributions to the study of the geography of innovation and the role of entrepreneurial activity in the formation of regional industry clusters. Feldman's early work revealed that universities were necessary, but not sufficient, for technology-based economic development. She has written extensively on the process and mechanics of the commercialization of academic research, including on the early development and growth of biotechnology as an example of a transformative technology. Currently, Feldman is actively engaged in researching the industrial genesis of the Research Triangle region, where she is following the development of the regional economy over a 50-year period using a unique database of 3200 entrepreneurial ventures and attempting to understand the institutional dynamics that created a vibrant regional economy. Feldman is a prolific writer whose work appears in numerous journals.

#### **BILL BONVILLIAN, JD**

Former Deputy Assistant Secretary of Transportation, William B. Bonvillian is a Lecturer at and senior director for special projects at MIT's office of Open Learning. In recent years, he has helped lead major research projects on workforce education. From 2006 until 2017, he was director of MIT's Washington Office, supporting MIT's longstanding role in science policy at the national level. He served as an advisor to MIT's major cross-campus policy initiatives on advanced manufacturing, as well as on energy technology, life science convergence and online education. He served on the President's industry-university Advanced Manufacturing Partnership which developed the Advanced Manufacturing Institute program. He teaches courses on innovation systems and science and technology policy at MIT in the and Science Technology and Society and Political Science Departments. Previously, he worked for over 15 years on science and innovation issues as a senior advisor in the U.S. Senate. Author of numerous articles

and book chapters, Dr. Bonvillian has co-authored multiple books, including *Workforce Education – A New Roadmap*, *Advanced Manufacturing – The New American Innovation Policies*, *Technological Innovation in Legacy Sectors*, and *Structuring an Energy Technology Revolution*. He is coeditor of and contributed to the book *The DARPA Model for Transformative Technologies*. He serves on the National Academies of Sciences' standing committee for its Innovation Policy Forum, was on its Board on Science Education for seven years and has served on seven other NAS committees. In recent years, he chaired the standing Committee on Science and Engineering Public Policy at AAAS and he serves on the board of the Information Technology and Innovation Foundation. He was named a AAAS Fellow in 2011 and awarded IEEE's public service award in 2007.

### **BINDU NAIR, PHD**

Dr. Bindu Nair is the Director for Basic Research within the Office of the Secretary of Defense (OSD). In this role, she is responsible for oversight and coordination of the Department's \$2.5 billion investment in basic science. She previously served as the Deputy Director of OSD's Human Performance, Training and Biosystems Directorate. Prior 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. Her research expertise is in the field of Material Science and Engineering including nanomaterials, polymers, and organic electronic materials. She has published primarily in membrane and materials development fields and holds patents in fuel cell technologies.

### **DON GRAVES, JD**

Mr. Don Graves is the 19th Deputy Secretary of Commerce. Mr. Graves brings decades of experience in the private sector, government, and nonprofits to the Department of Commerce. Most recently, he served as Counselor to President Joe Biden during the 2020 presidential campaign. Prior to that, Mr. Graves served as Executive Vice President and Head of Corporate Responsibility and Community Relations at KeyBank. In this role, he led KeyBank's corporate responsibility team, including the bank's \$16.5 billion National Community Benefits Plan, the bank's sustainability work, stakeholder engagement, and outreach, and oversaw the KeyBank Foundation and the First Niagara Foundation. During the Obama-Biden Administration, Mr. Graves served as Counselor and Domestic and Economic Policy Director for then-Vice President Biden. He was previously appointed by President Barack Obama as Executive Director of the President's Council on Jobs and Competitiveness and led the federal government's efforts in the economic recovery of the city of Detroit. Mr. Graves also served as Deputy Assistant Secretary for Small Business, Community Development, and Housing Policy at the U.S. Department of the Treasury, where he oversaw the CDFI Fund, the \$4 billion Small Business Lending Fund, and the \$1.5 billion State Small Business Credit Initiative. He was also the U.S. Federal Representative to the G7 Task Force on Social Impact Investment. He has served on the Board of Directors of the MetroHealth Foundation, the FDIC's Advisory Committee on Economic Inclusion, the Board of Trustees of the Community Reinvestment Fund, the Policy Advisory Board of the Biden Institute at the University of Delaware, the Board of Visitors of the Cuyahoga Community College, the Advisory Board of the Commission on Economic Inclusion, and as Co-Chair of Cleveland Rising.

**SETHURAMAN PANCHANATHAN, PHD**

The Honorable Sethuraman Panchanathan is a computer scientist and engineer and the 15th director of the U.S. National Science Foundation (NSF). Prior to joining NSF, Panchanathan served on the National Science Board as chair of the Committee on Strategy and as a member of the External Engagement and National Science and Engineering Policy committees. Additionally, he served on the National Advisory Council on Innovation and Entrepreneurship. He was chair of the Council on Research of the Association of Public and Land-grant Universities and co-chair of the Extreme Innovation Taskforce of the Global Federation of Competitiveness Councils. Dr. Panchanathan previously served as the Executive Vice President of the Arizona State University (ASU) Knowledge Enterprise, where he was also Chief Research and Innovation Officer. He was the founder and Director of the Center for Cognitive Ubiquitous Computing at ASU. Under his leadership, ASU increased research performance five-fold, earning recognition as the fastest growing and most innovative research university in the U.S. Arizona's Governor appointed Panchanathan as senior advisor for science and technology. He was Editor-in-Chief of the *IEEE Multimedia Magazine* and editor/associate editor of several international journals. Dr. Panchanathan has published close to 500 articles and has mentored more than 150 graduate students, postdocs, research engineers and scientists. For his scientific contributions, he has received numerous awards, including the Governor's Innovator of the Year for Academia Award. He is a fellow of the National Academy of Inventors (served as Vice President for Strategic Initiatives), the American Association for the Advancement of Science, the Canadian Academy of Engineering, the Association for Computing Machinery, the Institute of Electrical and Electronics Engineers and the Society of Optical Engineering.

September 29, 2021 (in order of presentation)

**BETH CAMERON, PHD**

Dr. Beth Cameron currently serves as Special Assistant to the President and Senior Director for Global Health Security and Biodefense on the White House National Security Council (NSC) staff. Prior to her recent appointment, Beth was the vice president for global biological policy and programs at NTI. Dr. Cameron previously served as the senior director for global health security and biodefense on the White House NSC staff, where she was instrumental in developing and launching the Global Health Security Agenda and addressed homeland and national security threats surrounding biosecurity and biosafety, biodefense, emerging infectious disease threats, biological select agents and toxins, dual-use research, and bioterrorism. From 2010-2013, Dr. Cameron served as office director for Cooperative Threat Reduction (CTR) and senior advisor for the Assistant Secretary of Defense for nuclear, chemical and biological defense programs. In this role, she oversaw implementation of the geographic expansion of the Nunn-Lugar CTR program. For her work, she was awarded the Office of the Secretary of Defense Medal for Exceptional Civilian Service. From 2003-2010 Dr. Cameron oversaw expansion of Department of State Global Threat Reduction programs and supported the expansion and extension of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, a multilateral framework to improve global CBRN security. Dr. Cameron served as an American Association for the Advancement of Science (AAAS) fellow in the health policy office of Senator Edward M. Kennedy where she worked on the Patients'

Bill of Rights, medical privacy, and legislation to improve the quality of cancer care. From 2001-2003, she served as a manager of policy research for the American Cancer Society.

### **GEORGES BENJAMIN, MD, MACP**

Dr. Georges Benjamin has been executive director of APHA since 2002, leading the Association's push to make America the healthiest nation in one generation. He came to APHA from his position as secretary of the Maryland Department of Health and Mental Hygiene. Dr. Benjamin became secretary of health in Maryland in April 1999, following four years as its deputy secretary for public health services. As secretary, Dr. Benjamin oversaw the expansion and improvement of the state's Medicaid program. Dr. Benjamin started his medical career in 1981 in Tacoma, Washington, where he managed a 72,000-patient visit ambulatory care service as chief of the Acute Illness Clinic at Madigan Army Medical Center and was an attending physician within the Department of Emergency Medicine. A few years later, he moved to Washington, D.C., where he served as chief of emergency medicine at the Walter Reed Army Medical Center. After leaving the Army, he chaired the Department of Community Health and Ambulatory Care at the District of Columbia General Hospital. He was promoted to acting commissioner for public health for the District of Columbia and later directed one of the busiest ambulance services in the nation as interim director of the Emergency Ambulance Bureau of the District of Columbia Fire Department. At APHA, Dr. Benjamin is the author of more than 100 scientific articles and book chapters. His recent book *The Quest for Health Reform: A Satirical History* is an exposé of the nearly 100-year quest to ensure quality affordable health coverage for all through the use of political cartoons.

### **SCOTT GOTTLIEB, MD**

Dr. Scott Gottlieb is a senior fellow at the American Enterprise Institute (AEI). He returned to AEI in 2019 after serving as the 23rd commissioner of the Food and Drug Administration (FDA). At AEI, he continues his work on improving public health through entrepreneurship and medical innovation and on expanding regulatory approaches to maintain patient and physician autonomy. Dr. Gottlieb is also a special partner with the venture capital firm New Enterprise Associates and serves on the boards of Pfizer, Illumina, Aetion, and Tempus. At the FDA, Dr. Gottlieb focused on a wide variety of issues, including drug pricing, medical product innovation, food safety, vaccination, and tobacco and vaping. He advanced new policies to address opioid addiction, working to rationalize prescribing as a way to reduce the rate of new addiction. He helped make the regulatory process for the development and review of novel drug and medical devices more efficient, including the approval of the first gene-therapy-based cancer treatment. Dr. Gottlieb helped promote competition through the approval of a record number of generic drugs, including the creation of new pathways for developing generic copies of complex drugs. He also helped advance the FDA's Oncology Center for Excellence, which fosters a collaborative scientific environment to improve the development and regulation of oncology products. In addition, he helped implement the 21st Century Cures Act to accelerate medical product development. Dr. Gottlieb previously served in other capacities at the FDA, including as deputy commissioner for medical and scientific affairs. Earlier, he served as senior policy adviser to the administrator at the Centers for Medicare & Medicaid Services. Until he joined the FDA as commissioner, he was also a clinical assistant professor at New York University School of Medicine. Earlier, he was a practicing physician and hospitalist concurrently with his AEI work.

**ANNE SCHUCHAT, MD**

Dr. Anne Schuchat is an internist and epidemiologist whose career at the Centers for Disease Control and Prevention spanned 33 years. She was the agency's Principal Deputy Director from 2015-2021 and served twice as acting CDC director. From 2006-2015, she was the first Director of CDC's National Center for Immunization and Respiratory Diseases (NCIRD), leading the nation's immunization program through recommendations for several new vaccines and the global deployment of vaccines against pneumonia and meningitis. Prior to becoming NCIRD director, Dr. Schuchat was Chief of the Respiratory Diseases Branch from 1998-2005. She first joined CDC as an Epidemic Intelligence Service officer in 1988. She's been instrumental in decades of CDC emergency responses including the COVID-19 pandemic, the 2019 outbreak of vaping associated lung injuries, the 2009 H1N1 influenza pandemic, and the 2003 SARS outbreak where she deployed to Beijing. She collaborated on meningitis, pneumonia, and Ebola vaccine trials in West Africa and surveillance and prevention projects in South Africa. In the 1990's, Dr. Schuchat spearheaded the effort to establish guidelines for the prevention of newborn infections from group B streptococcus, saving an estimated 100,000 newborn lives so far. Dr. Schuchat retired as a Rear Admiral in the Commissioned Corps of the United States Public Health Service in 2018 and from the CDC in 2021.

**TERRY ADIRIM, MD, MPH, MBA**

Dr. Terry Adirim was appointed Principal Deputy Assistant Secretary of Defense and currently serves as the Acting Assistant Secretary of Defense (ASD) for Health Affairs. As the Acting ASD, Dr. Adirim is the principal advisor to the Secretary of Defense for all defense health and force health protection policies, programs, and activities. Previously, she was Senior Associate Dean at the Schmidt College of Medicine at Florida Atlantic University (FAU). Prior to FAU, Dr. Adirim served as the Deputy Assistant Secretary of Defense for Health Services Policy and Oversight, providing leadership within the Military Health System. Dr. Adirim has previously worked in senior leader positions at the Departments of Homeland Security and Health and Human Services, and in academic medicine. A pediatric emergency medicine physician, she practiced medicine for over 25 years, and earned her MD from the University of Miami School of Medicine, MPH from the Harvard School of Public Health and MBA from the Isenberg School of Management at University of Massachusetts, Amherst.

**ANDY SLAVITT, MBA**

Mr. Andy Slavitt was President Biden's White House Senior Advisor for the Covid response. He has led many of the nation's most important health care initiatives, serving as President Obama's head of Medicare and Medicaid and overseeing the turnaround, implementation and defense of the Affordable Care Act. Mr. Slavitt is the "outsider's insider", serving in leading private and non-profit roles in addition to his government services. He is founder and Board Chair Emeritus of United States of Care, a national non-profit health advocacy organization as well as a founding partner of Town Hall Ventures, a healthcare firm that invests in underrepresented communities. He co-chaired a national initiative on the future of health care at the Bipartisan Policy Center. He chronicles what goes on inside the government and across the nation at town halls, in USA Today, on his award-winning podcast In the Bubble, and on Twitter. He is the author of *Preventable*, a best-selling account of the US's Coronavirus response released in 2021.

**MANDY COHEN, MD, MPH**

Dr. Mandy Cohen was appointed to the role of Secretary of the North Carolina Department of Health and Human Services (DHHS) in January 2017 by Governor Roy Cooper. Secretary Cohen is an internal medicine physician and has experience leading complex health organizations. Before coming to the North Carolina DHHS, she was the Chief Operating Officer and Chief of Staff at the Centers for Medicare and Medicaid Services (CMS). Secretary Cohen and her team work tirelessly to improve the health, safety and well-being of all North Carolinians. Dr. Cohen leads the COVID-19 response for the State of North Carolina. Her team at NC DHHS oversees the operational response in addition to constructing the advanced data infrastructure necessary to collect and analyze key data points to drive decision making. Secretary Cohen also leads the development of North Carolina policy guidance which informs the actions needed to slow COVID-19 spread. Secretary Cohen has made closing the coverage gap in North Carolina a key priority. Additionally, Dr. Cohen's "buying health" agenda heavily focuses on broad drivers of health. Under Secretary Cohen's leadership, North Carolina implemented the first-in-the-nation statewide coordinated care network, NCCARE360, to electronically connect those with identified needs to community resources and allow for a feedback loop on the outcome of that connection. This private-public partnership has been a key feature of NC's COVID response and backbone to the innovative Health Opportunities pilot authorized under North Carolina's 1115 Medicaid waiver.

**CHARITY DEAN, MD, MPH&TM**

Dr. Charity Dean is the CEO and co-founder of The Public Health Company Group, Inc. Prior, she served as the Assistant Director of the California Department of Public Health (CDPH) and part of the executive leadership team directing California's strategy and operational response to the COVID-19 pandemic. Dr. Dean co-founded and co-chaired the California testing task force which successfully executed a strategy to rapidly scale from 2,000 to over 100,000 COVID-19 tests per day in under 12 weeks. In her role with CDPH, Dr. Dean provided strategic direction and oversight for the Center for Health Care Quality and led public health and healthcare policy development and implementation to benefit all Californians. In 2019 Dr. Dean served as Acting State Public Health Officer and led the state's strategic and tactical response, in coordination with 61 local health officers, to the multi-state Vaping-associated outbreak (EVALI), bioterrorism incidents, state-wide communicable disease outbreaks, and large-scale health facility evacuations during wildfires and emergency power shutoffs. Prior to serving Governor Brown and Governor Newsom, Dr. Dean served as local Health Officer for the Santa Barbara County Public Health Department where she directed communicable disease outbreak response and containment, tuberculosis control, public health disaster response, served as medical director for the public health laboratory, and was an attending physician overseeing tuberculosis clinic, HIV medicine, homeless medicine, and primary care.

**JOSHUA SHARFSTEIN, MD**

Dr. Joshua Sharfstein is Vice Dean for Public Health Practice and Community Engagement and Professor of the Practice in Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health. He is also the Director of the Bloomberg American Health Initiative. He is the author of *The Public Health Crisis Survival Guide: Leadership and Management in Trying Times*, and the co-author of *The Opioid*

*Epidemic: What Everyone Needs to Know*. Previously, Dr. Sharfstein served as Secretary of the Maryland Department of Health and Mental Hygiene from January 2011 to December 2014. In this position, he led efforts to align Maryland's health care system with improved health outcomes, culminating in the adoption of a revised payment model for all hospital care for Maryland residents. He also oversaw the development of a statewide health improvement process with 18 local public-private coalitions and the reshaping of state's approach to health information exchange, long-term care, and behavioral health. From March 2009 to January 2011, Dr. Sharfstein served as Principal Deputy Commissioner of the U.S. Food and Drug Administration, where he oversaw the agency's successful performance management and transparency initiatives. From December 2005 to March 2009, as Commissioner of Health for Baltimore City, Dr. Sharfstein led innovative efforts that contributed to major declines in both overdose deaths and infant mortality rates. From July 2001 to December 2005, as minority professional staff and health policy advisor for Congressman Henry A. Waxman, Dr. Sharfstein was engaged in a wide range of oversight and legislative activities on health care topics, including emergency preparedness, HIV, and the politicization of science.

#### **STÉPHANE BANCEL, MENG, MSc, MBA**

Mr. Stéphane Bancel has served as Moderna's Chief Executive Officer since October 2011 and as a member of Moderna's board of directors since March 2011. Before joining the Company, Mr. Bancel served for five years as Chief Executive Officer of the French diagnostics company bioMérieux SA. From July 2000 to March 2006, he served in various roles at Eli Lilly and Company, including as Managing Director, Belgium and as Executive Director, Global Manufacturing Strategy and Supply Chain. Prior to Lilly, Mr. Bancel served as Asia-Pacific Sales and Marketing Director for bioMérieux. Mr. Bancel currently serves on the board of directors of Indigo. He is currently a Venture Partner at Flagship Pioneering.

#### **KAREN DESALVO, MD, MPH, MSc**

Dr. Karen DeSalvo is Chief Health Officer at Google where she leads a team of health professionals who provide guidance for the development of health research, products and services across Google. Dr. DeSalvo's career has focused on improving health and eliminating disparities and she leans on deep experience working at the intersection of medicine, public health, and information technology. Before joining Google, Dr. DeSalvo was National Coordinator for Health Information Technology and Assistant Secretary for Health (Acting) in the Obama Administration. During her time at the U.S. Department of Health and Human Services, Dr. DeSalvo focused on creating a more consumer-oriented, transparent and value-based health system. Dr. DeSalvo served as the New Orleans Health Commissioner following Hurricane Katrina. She was previously Vice Dean for Community Affairs and Health Policy at the Tulane School of Medicine where she was a practicing internal medicine physician, educator, researcher and leader. She serves on the Council of the National Academy of Medicine.