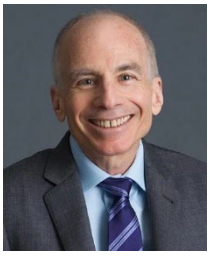
Meeting 3 of the Committee on the Current State of Research, Development, and Stockpiling of Smallpox Medical Countermeasures

MODERATORS BIOSKETCHES



LARRY GOSTIN, J.D., L.L.D. (CHAIR) is Distinguished University Professor, Georgetown University's highest academic rank, where he directs the WHO Organization Collaborating Center on National and Global Health Law and directs the O'Neill Institute for National and Global Health Law. He has worked at the intersection of law, national and global health, and ethics, including deep engagement with major novel infectious disease outbreaks, including SARS, Ebola, Zika, Influenza H1N1, and COVID-19. In 2016, NASEM conferred on Gostin the Adam Yarmolinsky Medal for "distinguished service by a Member who, over a significant period of time, has contributed in multiple ways to the mission of the Institute of Medicine." In 2015, the APHA conferred a lifetime achievement award. Prof Gostin has chaired and served on multiple experts NASEM committees, as well as serving several boards including global health, population health, and health sciences policy.

NOREEN HYNES, M.D., M.P.H. (COMMITTEE MEMBER) is currently Associate Professor at Johns Hopkins University (JHU) Schools of Medicine and Public Health with appointments in Infectious Diseases (Department of Medicine) and Public Health (Departments of International Health; Environmental Health & Engineering; and Population/Family/Reproductive Health) and serves as the Research Director and Associate Medical Director of the Johns Hopkins Hospital Biocontainment Unit. Dr. Hynes spent over 30 years working in the U.S. Government including the Peace Corps, Department of State, Department of Health and Human Services (HHS), and the Office of the Vice President of the U.S. She has worked both internationally and domestically providing medical care, working with and at state/county/local health departments, teaching (bedside and classroom), and undertaking research (laboratory-based, vaccine [Ebola, dengue, COVID-19] and therapeutic randomized clinical trials [COVID-19 ACTT], implementation science (COVID-19), and disease surveillance. Since 1997, she has increasingly focused on high consequence pathogens, particularly Category A agents including as a Deputy Assistant Secretary in the Office of Public Health Preparedness and Response (now ASPR)/Director of OPHEMC (the Office of Public Health Emergency Medical Countermeasures), now BARDA, and created the OPHEMC Enterprise. In the latter setting, Dr Hynes ran an $8 billion program develop and acquire medical countermeasures (MCM) for the Strategic National Stockpile (SNS) including smallpox MCMs (live, replicating smallpox vaccine [ACAM2000], live non-replicating smallpox vaccine [MVA-BN/Jynneos], ST-246 (tecovirimat/Tpoxx], anthrax MCM, and pandemic influenza MCM. Dr. Hynes is trained as a physician and has completed a residency in internal medicine and a fellowship in infectious diseases at Harvard's Massachusetts General Hospital; a master of public health at JHU; field epidemiology as an Epidemic Intelligence Service officer at CDC; and a diploma in tropical medicine and hygiene from the Royal College of Physicians/London School of Tropical Medicine and Hygiene. She has received numerous awards including the HHS Secretary's Award for outstanding Service, the US Public Health

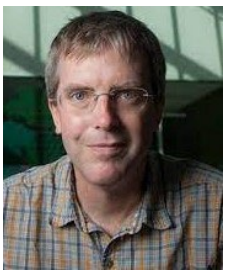
Service's Distinguished Service Medal, and the Leadership Program for Women Faculty at JHU. Dr. Hynes has published over 100 journal articles and book chapters.

RICK KENNEDY, Ph.D. (COMMITTEE MEMBER) is a Professor of Medicine and Co-Director of Mayo Clinic's Vaccine Research Group. He has over 150 peer-reviewed publications. He is the Deputy Editor-in-Chief of Vaccine: X, an Associate Editor at Vaccine, and an Associate Editor for Frontiers in Immunology. He is a member of the American Association of Immunologists and the American Society for Microbiology. He has served as a reviewer for dozens of NIH study sections and has participated in numerous national and international review panels. Dr. Kennedy has multiple R01 grants from NIH funding his work on viral vaccine immunology. Dr. Kennedy has also received foundation and industry funding to study adverse events after COVID-19 vaccination and to develop peptide-based vaccines for COVID-19, respectively. His research emphasis is on understanding the factors driving the tremendous diversity in human immune responses to vaccines against viral pathogens including: influenza, measles, mumps, rubella, SARS-CoV-2, smallpox, varicella, and zika. Dr. Kennedy has authored the smallpox and vaccinia chapter in the textbook VACCINES, has served as an advisor for the WHO Global Advisory Committee on Vaccine Safety in 2015, wrote the report "Emergency Stockpiling and Future us of Smallpox Vaccines" for that Committee, and served as an external advisor for the WHO Strategic Advisory Group of Experts- Monkeypox Working Group in 2022. Dr. Kennedy is also a member of the Joint Scientific Committee for Phase 1 Clinical Trials for the Queen Mary Hospital (The University of Hong Kong) and Prince of Wales Hospital (The Chinese University of Hong Kong).

INGER DAMON, M.D., Ph.D. (COMMITTEE MEMBER) retired from the CDC in September 2022, where her career spanned 23 years of work on deadly diseases and associated preparedness and response efforts. Currently, she continues to hold an Adjunct Faculty position with Emory University School of Medicine. She is one of the world's experts on orthopoxviruses including smallpox, an infectious disease that killed millions before it was declared eradicated in 1980 by global surveillance and vaccination campaigns. For over fifteen years, Dr. Damon directed CDC's smallpox research program conducting research to help develop new smallpox diagnostic tests, assess the effectiveness of new vaccines, and create better drugs for treatment. Her expertise leading this global poxvirus activity included programs to look for sources of poxviruses in wildlife, leading CDC's 2003 response to an outbreak of monkeypox in the United States linked to imported exotic pets, and reestablishment of collaborative work on mpox in the Congo Basin. From 2014-2022, Dr. Damon served as the director for the Division of High Consequence Pathogens and Pathology, overseeing the agency's expertise on deadly pathogens such as Ebola, other viral hemorrhagic fever viruses, smallpox, rabies, and anthrax. The Division has responsibility for a broad range of bacterial and viral pathogens, ME/CFS, as well as prion diseases and cross-cutting pathology roles. She served as the Incident Manager for CDC's response to the Ebola epidemic in West Africa to help direct the agency's national and global fight against Ebola. Dr. Damon has worked with multiple international organizations. Most recently, she served as Rapporteur on the IHR Emergency Committee on the multi-country outbreak of mpox, and standing recommendations committee. She served as a member of the Scientific Advisory Board for Coalition for Epidemic Preparedness Innovations from 2017-2023, and has been a member of the WHO Advisory Committee on Variola Virus Research from 2018 to the present. Dr. Damon has participated as a work group member with

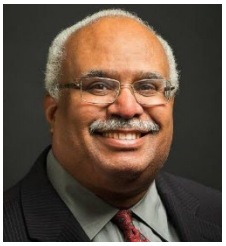
the Advisory Committee on Immunization Practices (ACIP) to review information to contribute to ACIP decision making on orthopoxvirus and mpox vaccination recommendations in the U.S. Dr. Damon has participated as a member of U.S. interagency smallpox preparedness efforts in the Public Health Emergency Countermeasure Enterprise (PHEMCE). In October 2023, Dr. Damon joined the WHO R&D Pathogen Prioritization workgroup considering Poxvirus family pathogens. Dr. Damon has been a member of the WHO Scientific Advisory Group on the Origins of novel Pathogens (SAGO) since its inception. Dr. Damon is a co-inventor on a patent for a poxvirus diagnostic assay. Dr Damon has published, with multiple co-authors and collaborators, over 200 peer reviewed manuscripts, agency documents, or textbook chapters related to research to understand responding to orthopoxviruses and emerging pathogens. Her efforts and work have been recognized both within U.S. government and externally through multiple awards. Recent recognitions include the CDC's Lifetime Scientific Achievement Award in 2022, an Honorary Doctorate of Science from Amherst College in 2016, and the United States Public Health Service Distinguished Service Medal in 2017. Dr. Damon completed a combined M.D. Ph.D. program at the University of Connecticut Health Center in 1992, and a B.A., magna cum laude in Chemistry, from Amherst College in 1984. She trained in Internal Medicine at the Hospital of the University of Pennsylvania (1992-1995) and completed a fellowship in Infectious Diseases at NIAID in 1999 where she worked in the laboratory of Dr. Bernard Moss.

HENRY WILLIS, Ph.D., M.S. (COMMITTEE MEMBER) is a senior policy researcher at the RAND Corporation and a professor of policy analysis at the Pardee RAND Graduate School. He previously served as deputy director of the RAND Homeland Security Division and director of the division's Strategy, Policy, and Operations Program and Infrastructure, Immigration, and Security Operations Program. Willis is a recognized expert in risk analysis and management. Recent work analyzes biosecurity risks and biodefense capabilities; food, energy, and water security; climate and natural disaster risks; critical infrastructure resilience; national preparedness to chemical, biological, nuclear, and radiological attacks; and prevention of global catastrophic and existential risk. Through his work he testified before Congress; served on several committees of the National Academy of Sciences; advised government agencies across the United States, Europe, Australia, and the United Arab Emirates; and published dozens of journal articles, reports, and op-eds on applying risk analysis to homeland security policy. Willis is a member of the Council on Foreign Relations and serves on the Science and Governance Committees of the Society for Risk Analysis. His work in homeland security policy evolved from his work on program evaluation at the White House Office of Management and Budget and infrastructure design as a water and wastewater engineer. He earned his Ph.D. in engineering and public policy at Carnegie Mellon University, M.S. in environmental engineering from the University of Cincinnati, and B.A. in chemistry from the University of Pennsylvania.



DREW ENDY, Ph.D., M.S. (COMMITTEE MEMBER) is a bioengineer at Stanford University who studies and teaches synthetic biology. His goals are civilization-scale flourishing and renewal of liberal democracies. Prof. Endy helped launch new undergraduate majors in bioengineering at both MIT and Stanford and the iGEM — a global genetic-engineering "Olympics" enabling thousands of students annually. His past students lead companies like Ginkgo Bioworks and Octant. He is married to Christina Smolke, CEO of Antheia the essential medicine company. He has financial interests in several synthetic

biology companies. Endy served on the US National Science Advisory Board for Biosecurity (NSABB), the Committee on Science Technology & Law (CSTL), the International Union for the Conservation of Nature's (IUCN) Synthetic Biology Task Force and, briefly, the Pentagon's Defense Innovation Board (DIB). He currently serves on the World Health Organization's (WHO) Advisory Committee on Variola Virus Research (ACVVR), the Defense Science Board (DSB) Emerging Biotechnologies Task Force, and the Organization for Economic Co-operation & Development (OECD) Synthetic Biology Task Force. He also serves on the boards of the BioBricks, iGEM, and BioBuilder Educational Foundations, public benefit charities advancing open source biotechnologies and bioengineering education. Esquire magazine recognized Drew as one of the 75 most influential people of the 21st century.



GEORGES BENJAMIN, M.D. (COMMITTEE MEMBER) is a well-known health policy leader, practitioner and administrator. He currently serves as the executive director of the American Public Health Association, the nation's oldest and largest organization of public health professionals. He is also a former secretary of Health for the state of Maryland. Dr. Benjamin is a graduate of the Illinois Institute of Technology and the University Of Illinois College Of Medicine. He is board-certified in internal medicine, a Master of the American College of Physicians, a fellow of the National Academy of Public Administration, a fellow emeritus of the American College of Emergency Physicians, and a member of the National Academy of Medicine. He serves on several nonprofit boards such as Research!America, the Truth Foundation, and the Reagan-Udall Foundation. He is a former member of the National Infrastructure Advisory Council, a council that advises the President on how best to assure the security of the nation's critical infrastructure.

Meeting 3 of the Committee on the Current State of Research, Development, and Stockpiling of Smallpox Medical Countermeasures

SPEAKER BIOSKETCHES

THURSDAY, DECEMBER 14, 2023

Session II: U.S Government Updates

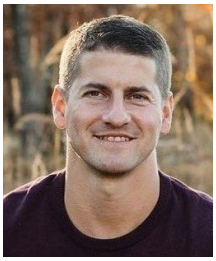
Food and Drug Administration Panel

NOEL GERALD, Ph.D., is the Chief of the Bacterial Respiratory and Medical Countermeasures Branch in the Division of Microbiology Devices, Office of In Vitro Diagnostics, CDRH, at the U.S. Food and Drug Administration. He received his Ph.D. in Cell Biology from Duke University in 2000 and completed postdoctoral training in parasitology at the NIH and FDA. In 2011, he joined the Division of Microbiology Devices as a scientific reviewer and worked in subject areas spanning the Division on diagnostics of bacterial, parasitic, and viral diseases of economic and global significance. During the COVID-19 Public Health Emergency, he served on the COVID-19 Serology Team as a reviewer and then as Lead for three teams reviewing emergency use authorizations for SARS-CoV-2 antibody tests. In 2022, he became Chief of the Bacterial Respiratory and Medical Countermeasures Branch, which is responsible for the regulatory review of in vitro diagnostics for a variety of infectious disease areas including mpox and smallpox. He led the review teams for mpox diagnostics in response to the 2022 global mpox outbreak.

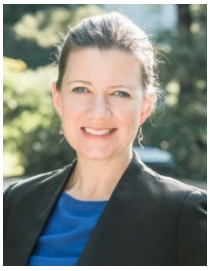
Administration for Strategic Preparedness and Response Panel

STEVE ADAMS, M.P.H., serves as Deputy Assistant Secretary of the Strategic National Stockpile (SNS) located within the Administration for Strategic Preparedness and Response (ASPR) in the U.S. Department of Health and Human Services (HHS). Mr. Adams has served in a variety of leadership roles over the past 30 years in contingency response programs as well as with public health efforts as varied as HIV field epidemiology to Cold War-era nuclear weapons production. He has represented ASPR and the Centers for Disease Control and Prevention as an emergency response and supply chain expert in ongoing collaborations with the World Health Organization, other United Nations agencies, and private sector partners to enhance the supply chain for medical material needed to address CBRNE threats, humanitarian assistance missions, and to combat global pandemics. As part of the White House-led Global Health Security Initiative, he led technical assistance efforts to assist many high-priority African countries in developing national-level medical logistics plans. In addition to technical and programmatic leadership, Mr. Adams has managed many large-scale public health emergency responses, including the SNS response to the COVID-19 pandemic, and led rapid field deployment teams. He earned a Master of Public

Health degree from the University of North Carolina at Chapel Hill and a program certificate from Harvard's National Preparedness Leadership Initiative.



DANIEL WOLFE, Ph.D., currently serves as the Branch Chief for the Vaccine Program in support of the CBRN Division of the Biomedical Advanced Research and Development Authority (BARDA). In doing so, he leads the advanced development and management of complex vaccine projects targeting biological threats. The branch is comprised of a team of interdisciplinary experts providing technical oversight of the manufacturing, testing, clinical, non-clinical, and regulatory aspects of these vaccine programs. He leads a program of vaccines targeting priority biological threats, leading them across the 'valley of death' into advanced development and ultimately to FDA licensure. His efforts have been a key aspect in the licensure of vaccines against Ebola and smallpox as well as the Emergency Use Authorization of COVID-19 vaccines. He and his team continue to improve the preparedness posture for the United States in the event of a biological attack or outbreak. His background includes a Ph.D. in Pathobiology, studying mechanisms of vaccine-mediated immunity and vaccine escape.



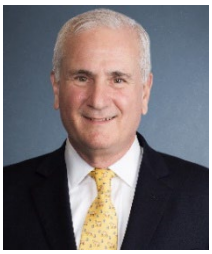
KAREN MARTINS,Ph.D., is the Branch Chief for the Antivirals and Antitoxins Branch in the CBRN Division at BARDA. She joined BARDA in January of 2020 as a Project Officer in the Branch and assumed the Branch Chief role in 2021. Dr. Martins is a viral immunologist with experience in clinical and preclinical vaccine and therapeutics testing. She completed her doctorate at Johns Hopkins Medical School and postdoctoral work at USAMRIID.

MARGARET SLOANE, Ph.D., Office of the Assistant Secretary for Preparedness and Response at U.S. Department of Health and Human Services (HHS).

Session III: Smallpox Medical Countermeasures Landscape

Vaccine Research and Development

PAUL CHAPLIN, Ph.D., is the President and CEO of Bavarian Nordic. Mr. Chaplin joined Bavarian Nordic in 1999, and was appointed executive vice president in 2004 and President & CEO in 2014. Prior to joining the Company, Mr. Chaplin worked for several years both in the UK and Australia developing vaccines against infectious diseases. Mr. Chaplin holds a Ph.D. in Immunology from Bristol University, and he is the general manager of Bavarian Nordic GmbH. He is a British national, born in 1967.



SETH LEDERMAN, M.D., is a physician, scientist and entrepreneur, and the founder of Tonix. Prior to Tonix, Dr. Lederman founded Targent Pharmaceuticals, which developed late-stage oncology drugs, including levoleucovorin. When Spectrum Pharmaceuticals acquired Targent's assets, levoleucovorin was marketed as Fusilev® for advanced colorectal cancer, gaining significant market acceptance. Prior to becoming a biopharma entrepreneur, Dr. Lederman served as an Associate Professor at Columbia University for two decades and directed basic science research in molecular immunology, infectious diseases and the development of therapeutics for autoimmune diseases. His fundamental work on the CD40-Ligand (CD154) elucidated the molecular basis of T cell helper function and has led to the development of therapeutic candidates for autoimmune diseases and organ transplant rejection in collaboration with Biogen and UCB. In addition to his research, Dr. Lederman served as attending physician in the Edward Daniels Arthritis and Autoimmunity Clinic on the Medical Service at Columbia Presbyterian Hospital for several years. Dr. Lederman earned his M.D. from Columbia University's College of Physicians and Surgeons and an AB from Princeton in Chemistry cum laude.

BRETT LEAV, M.D., is Executive Director of Clinical Development for Public Health Vaccines at Moderna, with responsibility for overseeing the Global and Public Health Vaccine portfolio. Dr. Leav joined Moderna in April 2020 and before assuming his current role, led the Moderna COVID-19 vaccine clinical program in adults and children, where he was able to contribute his deep knowledge and experience in vaccine development to address this global crisis. As Executive Director for Global and Public Health Vaccines, Dr. Leav currently oversees the clinical development of mRNA vaccines intended to prevent potential pandemic pathogens. Prior to joining Moderna, Dr. Leav led clinical development of novel seasonal influenza vaccines at Seqirus (CSL) and Novartis, where his team designed and conducted clinical trials for global licensure including the FDA approval of the first adjuvanted seasonal influenza vaccine, Fluad®. Dr. Leav's interest in vaccines began during his tenure as a clinician and researcher at Tufts Medical Center, where he served as Principal Investigator of an NIH-funded research effort to understand the mucosal immune response to the enteric pathogen, Cryptosporidium parvum. His understanding of host immunology was translated to the development and regulatory approval of monoclonal antibodies against rabies and Clostridioides difficile at University of Massachusetts Biologic Labs, the only non-profit, FDA-licensed manufacturer of vaccines in the United States. He is an author of 50 peer-reviewed publications. Dr. Leav received his medical degree from the University of Massachusetts in Worcester, Massachusetts. He completed his internal medicine residency at Georgetown University Medical Center in Washington DC and his fellowship in Geographic Medicine and Infectious Diseases at Tufts Medical Center after practicing primary care internal medicine for several years in Waltham, Massachusetts. He maintains board certification in Infectious Diseases.

CHRIS SINCLAIR, Ph.D., has served as Head of Global Preparedness at Emergent since February 2019. Prior to his current position, Dr. Sinclair served in a variety of positions, including VP Global Commercial Operations, VP Business Development and Corporate Strategic Planning, Operations Site Head and Head of Clinical Research and Medical Affairs. Prior to joining industry, Dr. Sinclair was involved in academic research at the Universities of Manitoba and Washington, and at the National Research Council of Canada. His experience covers biopharmaceutical development from IND enabling through to market launch, including significant regulatory experience with Health Canada, the U.S. Food and Drug Administration and the European Medicines Agency. He has worked on more than ten medical countermeasure development programs, including eight stockpiled by the US Government, and has worked with more than twenty countries on their preparedness efforts. Dr. Sinclair has a Ph.D. in Pharmacology and Experimental Therapeutics from the University of Manitoba, an MBA specializing in Pharmaceutical Management from the University of Colorado and has completed executive development programs at Harvard Business School.

Therapeutics Research & Development

CYRUS JAVAN, M.P.H., as an infectious diseases physician with an M.P.H. in Global Health from Harvard University, Cyrus has devoted his career to decreasing the global burden of communicable diseases. He has practiced medicine as faculty at UCLA, Georgetown University, and Cedars-Sinai Medical Center. He practiced medicine abroad in Bolivia and South Africa and earned a Diploma in Tropical Medicine and Hygiene in Peru. Cyrus spent time in Zambia initiating a partnership between the Harvard Ministerial Leadership Program and the Zambian Ministry of Health to eliminate malaria, and also helped successfully launch and run malaria vaccine clinical trials in Mali, West Africa as a clinical investigator at NIAID. Cyrus has been a co-author of an internal medicine book and numerous publications in medical journals. He currently lives in Washington, D.C., and serves as a medical officer at NIAID, where he helps oversee US and global efforts to combat HIV, COVID-19, and mpox.

DENNIS HRUBY, Ph.D., has been with SIGA Technologies since January 1996, serving as the Chief Scientific Officer since June 2000. Dr. Hruby received his Ph.D. in Microbiology from the University of Colorado Medical Center and his undergraduate degree in Microbiology from Oregon State University. He was a faculty member at Oregon State University for 27 years serving in a number of capacities, including Director of the Molecular and Cellular Biology Program and Chairman of the Microbiology Department. Dr. Hruby specializes in poxviruses, virology, and anti-infective research.

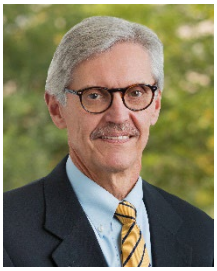
Session IV: Scenario Planning and MCM Stockpiling Strategies

Scenario Planning and MCM Stockpiling Strategies

NATHANIEL HUPERT, M.D., M.P.H., is an internal medicine physician and researcher in public health at Weill Cornell Medical College. He is practicing clinician and public health researcher focusing on healthcare processes and emergency response logistics. Using a variety of methods including Process Mining and Discrete Event Simulation, his research seeks to improve the effectiveness of care delivery in both conventional and crisis settings. Since September 2000, he has collaborated with local, State, Federal, and international public health officials in advancing clinical and health system preparedness for bioterrorism and other public health emergencies. Several of Dr. Hupert's computer models of mass antibiotic dispensing and hospital surge capacity have been widely downloaded and used by public health professionals worldwide, notably the BERM Point-of-Dispensing staffing model and the AHRQ Surge Model. He led the development of two U.S. healthcare planning documents, the "Community Guide for Public Health Preparedness" (2004) and the "Guidebook for Hospital Preparedness Exercises" (2010). Dr. Hupert has served on the Anthrax Modeling Working Group of the U.S. Department of Health and Human Services (DHHS) (2003-9); was a member of the 2007 RAND Expert Panel on Defining Public Health Preparedness; was the founding Director of the Preparedness Modeling Unit at the U.S. Centers for Disease Control and Prevention (CDC) (2008-10); served on the Scientific Advisory Board of the NIGMS Modeling of Infectious Disease Agent Study (MIDAS) (2012-14); and was a Senior Medical Advisor for the Biomedical Advanced Research and Development Authority (BARDA) in the office of the DHHS Assistant Secretary for Preparedness and Response (ASPR) (2014-15). Formerly Senior Advisor for both the CDC's Division of Preparedness and Emerging Infections and the DHHS National Healthcare Preparedness Program, Dr. Hupert is now the Policy Lead for the Oxford-based COVID-19 International Modeling Consortium (https://comomodel.net). Dr. Hupert received his training at Harvard Medical School, the University of Pittsburgh Medical Center, and the Harvard School of Public Health.

CRYSTAL WATSON, DrPH, M.P.H., is a Senior Scholar at the Johns Hopkins Center for Health Security and Associate Professor in the Department of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health. Her research focuses on public health risk assessment, crisis and risk-based decision making, public health and healthcare preparedness and response, biodefense, and emerging infectious disease preparedness and response. She is currently focused on the US and international response to COVID-19. During the COVID-19 pandemic, Dr. Watson has led or coauthored a series of influential reports related to contact tracing, reopening businesses, and the US criminal justice system. She has produced and contributed to a series of risk assessments on the topics of mass gatherings, business reopening, and university operations during COVID-19. Dr. Watson is also working with the World Health Organization to understand and estimate COVID-19 burden of disease around the world. From 2012 to 2013, Dr. Watson served as Program Manager for the Integrated CBRN [chemical, biological, radiological, and nuclear] Terrorism Risk Assessment program of the US Department of Homeland Security Science and Technology Directorate. Since joining the Center in 2004, Dr. Watson has led a variety of projects and authored many peer-reviewed articles and reports, including articles on biological threat characterization; risk assessment; federal decontamination plans for a wide-

area biological attack; federal, state, and local medical response to Hurricane Katrina; and the National Hospital Preparedness Program. Her work also focuses on supporting national and global health security. She was a member of the Center's joint external evaluation team that conducted an assessment of Taiwan's capacities and capabilities under the World Health Organization International Health Regulations. Dr. Watson also serves as an Associate Editor of the peer-reviewed journal *Health Security*. Dr. Watson earned a DrPH in Health Policy and Management in 2017 and an M.P.H. in 2009, both from the Johns Hopkins Bloomberg School of Public Health. She earned a BA in molecular, cellular, and developmental biology in 2004 from the University of Colorado at Boulder.



KEVIN YESKEY, M.D., is the Senior Advisor for Emergency Public Health at MDB, Inc, a strategic consulting firm located in Washington DC and Raleigh, NC. Dr. Yeskey spent over 30 years in federal service at HHS, DHS, and DoD, with his last position as the Principal Deputy Assistant Secretary for Preparedness and Response at ASPR/HHS. His current activities involve healthcare preparedness and response of state and local health departments. He is board certified in emergency medicine. He received his medical degree from the Uniformed Services University of the Health Sciences and his undergraduate degree from Brown University.

Meeting 3 of the Committee on the Current State of Research, Development, and Stockpiling of Smallpox Medical Countermeasures

SPEAKER BIOSKETCHES

FRIDAY, DECEMBER 15, 2023

Session II: Synthetic Biology Opportunities and Risks

CATHRYN MAYES, Ph.D., received a Ph.D. in Biological Defense and Health Security from the University of Nebraska Medical Center and a Bachelor of Science in Biology from the University of New Mexico. She works at Sandia National Laboratories in the WMD Threats and Aerosol Science department. Her current research focuses on the use of CRISPR gene editing technology as an antiviral against broad classes of viruses, specifically studying orthopoxviruses and coronaviruses.

Session III: Lessons Learned and Future Considerations for Smallpox Preparedness and Readiness

MATTHEW HEPBURN, M.D., is currently the Chief Medical Officer, Joint Program Executive Office, CBRN Defense, after recently completing an assignment as the Senior Advisor to Director of the Office of Science and Technology Policy (OSTP) for pandemic preparedness. Previously, Dr. Hepburn was the Vaccine Development Lead for the Countermeasures Acceleration Group (CAG), formerly known as Operation Warp Speed, a partnership between the Departments of Health and Human Services (HHS) and Defense (DoD) founded in May 2020 to help accelerate the development of COVID-19 vaccines. Prior to this position, Dr. Hepburn served as the Joint Project Lead of Enabling Biotechnologies for the Joint Program Executive Office for CBRN Defense. In this role, he was responsible for establishing a start-to-finish capability to develop vaccines and therapeutic solutions against current future biological threats. Due to the creation of this foundational capability, the team implemented the DoD Vaccine Acceleration Project, which provides key investments to advance vaccines and antibody therapeutic efforts, with special emphasis on acceleration of manufacturing these products and clinical trials. Dr. Hepburn served 23 years in the United States Army as an infectious diseases physician, retiring as a Colonel. His final assignment was as a Program Manager at DARPA (2013-2019). Concurrent with the first two years at DARPA, Dr. Hepburn also served on the research and development team at the newly Research, Development and Acquisitions Directorate at the Defense Health Agency. From 2010-2013, he served as Director of Medical Preparedness on the White House National Security Staff. Additional assignments have included Chief Medical Officer, Level 2 Treatment facility in Iraq (2009-2010), for which he earned a Bronze Star. Prior to deployment, Dr. Hepburn was Clinical Research Director at the U.S. Army Medical Research Institute for Infectious

Diseases (2007-2009), leading domestic and international clinical research efforts on biodefense products. This role entailed extensive service with the Cooperative Threat Reduction program in the republics of the former Soviet Union. Col. Hepburn was also an exchange officer to the United Kingdom (2005-2007) and internal medicine chief of residents at Brooke Army Medical Center (2000-2001) at Fort Sam Houston, Texas. Dr. Hepburn completed his infectious disease fellowship and internal medicine residency training at Brooke Army Medical Center in San Antonio, Texas. He received his medical degree and undergraduate degree in biomedical engineering from Duke University.

EWA KING, Ph.D., is Chief Program Officer at the Association of Public Health Laboratories, overseeing the association's public health programs including infectious disease, environmental health, food safety, emergency preparedness and response, newborn screening and genetics, and informatics. Previously, Dr. King served as director of the State Health Laboratories, a division of the Rhode Island Department of Health (RIDOH) in Providence, RI. In this role, Dr. King directed laboratory scientists and support personnel in laboratories that provide testing information for the state and national regulatory, law enforcement, environmental monitoring, and disease surveillance purposes. During the COVID-19 pandemic response, Dr. King served as a subject matter expert on laboratory/testing topics. Dr. King holds a PhD. in Chemistry and a Master of Science and Engineering degree in Food Chemistry and Technology.

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