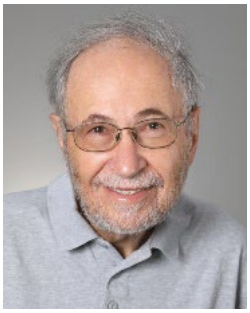
Meeting 2 of the Committee on the Current State of Research, Development, and Stockpiling of Smallpox Medical Countermeasures

DECEMBER 1, 2023

SPEAKER BIOSKETCHES

CHRISTY HUTSON, PH.D., M.S., following completion of her master's degree in September 2003, Dr. Christina (Christy) Hutson joined CDC's Poxvirus program during the first U.S. mpox outbreak. She went on to study and characterize the prairie dog model of monkeypox virus (MPXV) infection and completed her Ph.D. in Veterinary Pathology from the University of Georgia in 2015. Beginning in 2016 Dr. Hutson served as the Team Lead of the Virus-Host Molecular Interactions (VHMI) Team within CDC's Poxvirus and Rabies Branch (PRB). The VHMI team performs fundamental research on viral biology including studies of pathogenesis, host-pathogen interaction, vaccine efficacy, and novel therapeutic (in vitro and in vivo) efficacy studies. This team also serves the core group of individuals that performs training and experiments within the high-containment laboratory (BSL3 and BSL4); including performing experiments with variola virus (causative agent of smallpox). Dr. Hutson serves as an advisor to the World Health Organization (WHO) Advisory Committee on Variola Virus Research (ACVVR) which meets annually. In 2022 PRB was redesignated as the WHO Collaborating Center (CC) for Smallpox and Other Poxvirus Infections, with Dr. Hutson serving as the director of the CC. In May 2022, Dr. Hutson became Chief of the Poxvirus and Rabies Branch. The branch is configured into 8 teams (with over 70 staff members); 3 laboratory teams, 1 ecology and disease surveillance team, 2 teams focused on epidemiologic surveillance and clinical guidance, 1 team focused on quality and regulatory compliance, and 1 program management and operations team. During the 2022 global mpox outbreak, Dr. Hutson served as the lead for CDC's Laboratory and Testing Taskforce.

ROSAMUND LEWIS, M.D. is Head of the WHO Smallpox Secretariat and Technical Lead for Orthopoxviruses at the World Health Organization. Dr. Lewis is a leading public health physician and medical epidemiologist. She is the World Health Organization Technical Lead for the global mpox response and heads the Smallpox Secretariat of the WHO Health Emergencies Programme in Geneva. She has expertise in emergency preparedness, health security, immunization, disease surveillance and outbreak response, and risk communication. Dr. Lewis has worked at global, national, and municipal levels, supporting a wide range of disease control programmes, including for the global COVID-19 response. Dr. Lewis holds degrees in Science, Medicine, and Epidemiology & Biostatistics, Fellowships in Family Medicine and in Public Health and Preventive Medicine, and a Master of management in Health Leadership. She has published widely and holds an adjunct professorship at the University of Ottawa.



BERNARD MOSS, M.D., PH.D., was born in Brooklyn, N.Y. and received a B.A. and an M.D. from NYU. Following an internship at Children's Hospital Medical Center in Boston, he earned a Ph.D. in Biochemistry at MIT. In 1966, Moss joined the National Institute of Allergy and Infectious Diseases of the National Institutes of Health as an investigator where he is currently NIH Distinguished Investigator and Chief of the Genetic Engineering Section of the Laboratory of Viral Diseases. Moss developed an interest in understanding the regulation of gene expression at MIT, but his introduction to virology research occurred at the NIH leading to a life-long study of poxviruses. Early work by his group included purification and characterization of the poxvirus early transcription system, which led to the discovery and enzymology of cap structures at the 5'ends of viral and cellular mRNAs as well as the sequence around internal N6-methyadenosines. The Moss laboratory was the first to apply recombinant DNA and sequencing technologies to delineate the basic organization of the poxvirus DNA genome. By combining genetics and molecular biology, his group made key contributions to every aspect of poxvirus biology from entry to virion assembly and developed poxviruses as expression vectors for vaccine development. The Moss laboratory has been a training ground for numerous students, postdoctoral fellows, and visiting scientists. He served as President of the American Society for Virology and received many honors including election to the National Academy of Sciences, the American Academy of Microbiology, and Fellow of the American Association for the Advancement of Science. He received the Dickson Prize in Medicine, the Taylor International Prize in Medicine, the Bristol-Myers Squibb Award for Distinguished Achievement in Infectious Disease Research, and the American Society for Microbiology Lifetime Achievement Award.

STUART ISAACS, M.D., is an Associate Professor of Medicine at Perelman School of Medicine, University of Pennsylvania. Dr. Isaacs is an infectious disease specialist affiliated with multiple hospitals in the Philadelphia area, including Hospitals of the University of Pennsylvania-Penn Presbyterian and Philadelphia Veterans Affairs Medical Center. He received his medical degree from Yale School of Medicine and has been in practice for more than 20 years. He was the poxvirus program project leader for the NIH-funded Middle Atlantic Regional Center of Excellence in Biodefense and Emerging Infectious Diseases and was involved in developing safer smallpox vaccines as well as therapies to treat smallpox and complications from the current smallpox vaccine. Dr. Isaacs' laboratory focuses on using poxviruses as a model system to study viral proteins that are involved in viral pathogenesis, dissemination, and evasion of the host immune response. The Isaacs lab is also working with molluscum contagiosum, a poxvirus that causes a very common skin infection, especially in children. This virus has been difficult to study because it cannot be grown in cell culture. The Isaacs lab is pursuing approaches to grow this virus in cell culture systems.