

## U.S. Department of Health and Human Services | Office of the Assistant Secretary for Preparedness and Response

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## Veterinarians and the National Biodefense Science Board, a Federal Advisory Committee

Veterinarians and the National Biodefense Science Board, a Federal Advisory Committee, Maxine Kellman, DVM, PhD, PMP and Captain Charlotte Spires, DVM, MPH, DACVPM, Executive Director Department of Health and Human Services, the Office of the Secretary, the Office of Policy and Planning, the National Biodefense Science Board (NBSB)

#### Abstract

As we move towards a more cohesive One Health view in Public Health the veterinarian has an increasingly important role to play in protecting the nation. Veterinarians are one of the key players that support the National Biodefense Science Board, a Federal Advisory Committee. The National Biodefense Science Board (NBSB) was established under the Pandemic and All-Hazards Preparedness Act and provides expert advice and guidance on scientific, technical and other matters of special interest to the Department of Health and Human Services regarding current and future chemical, biological, nuclear, and radiological agents, whether naturally occurring, accidental, or deliberate. The NBSB may also provide advice and guidance to the Secretary and for the Assistant Secretary for Preparedness and Response (ASPR) on other matters related to public

health emergency preparedness and response. Public Health Veterinarians have served in the role of the Executive Director for the NBSB for several years and the current Executive Director is a Veterinary Medical Officer in United States Public Health Service Commissioned Corps. The NBSB consists of 13 voting members, including the Chairperson; ad ditionally, there are non-voting Ex Officio members. Currently, two Veterinarians serve as Ex Officio members. The NBSB has several Working Groups (WG). One such Working Group is the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) Strategic Implementation Plan (SIP) WG in which a Veterinarian serves as the Executive Secretariat. The NBSB utilizes the expertise of Veterinarians in different capac ities which are equally important in developing Biodefense policies.

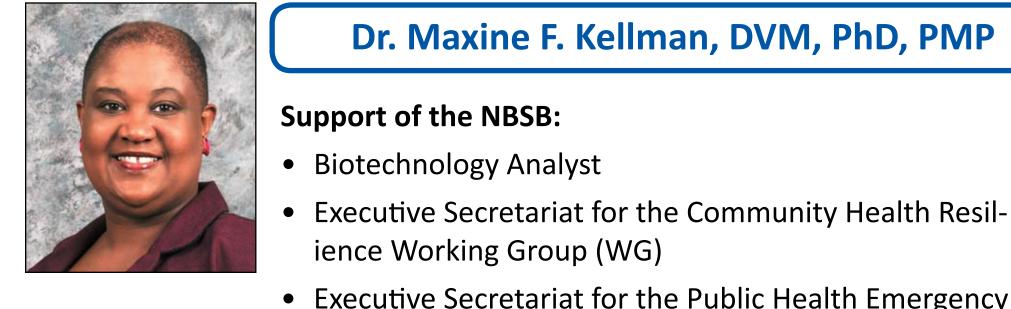


#### **CAPT Charlotte Spires, DVM, MPH, DACVPM**

Executive Director, National Biodefense Science Board

CAPT Charlotte Spires had over 19 years experience at the US Food and Drug Administration; before coming to the NBSB as its Executive Director. She received her commis-

sion into the US Public Health Service (PHS) in 1995, and has formal training and experience in epidemiology, food safety and public health. Dr. Spires has certifications in risk communication, six sigma and project management. She has served FDA as Director of the FDA Center for Veterinary Medicine's (CVM) Divi sion of Epidemiology, Quality Manager for the CVM Office of New Animal Drug Evaluation, Project Manager for the FDA After-hours Call Center in the Office of the Commissioner (OC), Senior Epidemiologist at the FDA Center for Food Safe ty and Applied Nutrition and Senior Program Management Officer in the FDA OC Office of Policy and Planning. CAPT Spires received her DVM degree from the Tuskegee Institute School of Veterinary Medicine and her Master of Public Health degree from the Johns Hopkins University School of Public Health and Hygiene. She has served as Director of the Commissioned Officers Association (COA) Board of Directors, Veterinary Category Representative to the COA and has deployed for animal rescue operations in the aftermath of Hurricanes Katrina, Rita and Ike. She developed a risk based algorithm for the management of companion animals of hurricane evacuees with special medical needs; and successfully implemented that algorithm at a Federal Medical Station established for Hurricane Ike evacuees in College Station, TX. She received the US PHS Commendation medal for that effort and was also chosen as the 2009 USPHS Veteri nary Responder of the Year.



## Dr. Maxine F. Kellman, DVM, PhD, PMP

#### **Support of the NBSB:**

 Biotechnology Analyst Executive Secretariat for the Community Health Resilience Working Group (WG)

Medical Countermeasures (PHEMCE) Strategic Preparedness Goals WG

- Executive Secretariat for the PHEMCE Strategy and Implementation Plan WG
- NBSB Undergraduate and Graduate Internship Program

Dr. Maxine Kellman has a B.S. degree in Biology with a concentration in Neurobiology and Behavior from Cornell University, a DVM from Tuskegee University School of Veterinary Medicine and PhD in Immunology and Parasitology from the VA-MD Regional College of Veterinary Medicine at Virginia Tech. Her dissertation research was completed at the United States Department of Agriculture (USDA) Animal Parasite Unit in Beltsville, MD. Dr. Kellman developed a Enzyme linked Immunospot (ELISPOT) assay to detect T helper cell responses from swine infected with the swine whipworm parasite, Trichuris suis. In addition, Dr. Kellman completed a NIH Post-Doctoral Fellowship at the Uniformed Services University of the Health Sciences and has spoken at several scientific symposia including at the World Association for the Advancement of Veterinary Parasitol ogy in Sun City, South Africa. She is a Certified Project Management Professiona and a Six Sigma Green Belt and has over 15 years experience in biomedical research and program/project management.

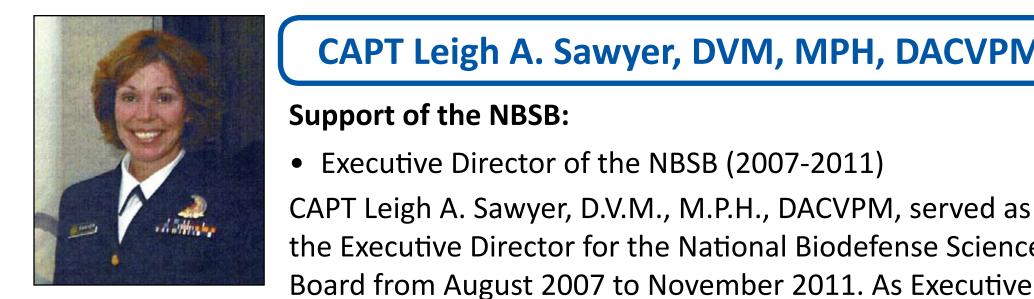
## Dr. Randall Levings, DVM, MS, PhD

#### **Support of the NBSB:**

- Ex Officio Representative for the United States Depart ment of Agriculture (USDA)
- All Hazards Science Response Working Group (WG) Member
- Future of the NBSB WG Member
- Medical Countermeasures WG Member
- Pandemic Influenza WG Member
- Situational Awareness Strategic Implementation Plan WG Member
- PHEMCE Strategic Implementation Plan WG Member

Dr. Randall L. Levings has served as the Scientific Advisor to the Emergency Management System, Veterinary Services, Animal and Plant Health Inspection Service (APHIS), USDA since January 2006. His duties include countermeasure technology evaluation and the technical harmonization of microbiological tools with emergency response functions. Dr. Levings' previous positions include Director of the National Veterinary Services Laboratories (the national reference veterinary diagnostic laboratory), Director of the Center for Veterinary Biologics Laboratory (the national biologics regulatory laboratory), and various supervisory and technical positions in the biologics and diagnostic virology laboratories of Veterinary Services. He has been involved in high-consequence disease programs such as highly pathogenic avian influenza, bovine spongiform encephalopathy, exotic Newcastle disease, and classical swine fever, as well as prepared ness measures for high consequence diseases such as foot and mouth disease In addition, Dr. Levings was involved in the initiation of the National Animal Health Laboratory Network, the National Centers for Animal Health moderniza tion and consolidation program, the establishment of the Centers for Veterinary Biologics, and testing the first genetically engineered veterinary vaccines and companion diagnostic kits.

Dr. Levings received a B.A. in Biological Sciences from the University of Missouri in 1974 and a D.V.M., M.S. in Immunobiology, and a Ph.D. in Veterinary Microbiology from Iowa State University in 1984, 1985, and 2012, respectively. His graduate studies focused on immunogens of bovine herpesvirus 1 and later the generation and molecular characterization of bovine monoclonal antibodies to the pathogen.



#### CAPT Leigh A. Sawyer, DVM, MPH, DACVPM

Support of the NBSB:

 Executive Director of the NBSB (2007-2011) CAPT Leigh A. Sawyer, D.V.M., M.P.H., DACVPM, served as the Executive Director for the National Biodefense Science

Director, CAPT Sawyer was the designated government official responsible for the NBSB's overall management and administrative matters. Currently, CAPT Sawyer is Program Manager and Science Officer for the Multiple Sclerosis Research Program, in the U.S. Department of Defense, U.S. Army Medical Research & Materiel Command's Congressionally Directed Medical Research Programs CAPT Sawyer previously served as Director of the Office of Europe and Eurasia in the Department of Health and Human Services (HHS), Office of the Secretary, Office of Global Health Affairs (OGHA) and was in charge of OGHA relationships with the European Commission and its subsidiary bodies, the Member States of the European Union, the Russian Federation and the other Newly Independent States, and the Holy See. Prior to CAPT Sawyer's appointment in OGHA, she served as Senior Science Advisor in OMSPH in the HHS Office of Public Health Emergency Preparedness (OPHEP) predecessor to the Office of the Assistant Secretary for Public Health Emergency Preparedness, where she worked closely

with OGHA on international pandemic-influenza activities. CAPT Sawyer received a Bachelor of Arts degree from the University of California, San Diego, in 1979, and a Masters in Public Health from the University of California, Berkeley, School of Public Health, in 1981. In 1985, CAPT Sawyer received the degree of Doctor of Veterinary Medicine from the University of Florida, College of Veterinary Medicine, in Gainesville, Florida, and received board certification in the American College of Veterinary Preventive Medicine in 1989. CAPT Sawyer has published in the fields of viral diseases, vaccines and epidemiology.

#### Dr. Gerald W. Parker, Jr., DVM, MS, PhD

#### **Contributions to the NBSB:**

- Incorporated language to create the NBSB in the 2006 Pandemic and All-Hazards Preparedness Act (PAHPA)
- Instrumental in the development of Public Health Medical Countermeasures Enterprise (PHEMCE)
- Dr. Gerald W. Parker, Jr. served as the Principal Deputy Assistant Secretary for Preparedness and Response at the Department of Health and Human Services (DHHS) from July 2005 to November 2010. While at DHHS, Dr. Parker provided leadership in coordinating HHS-wide efforts with respect to preparedness for and response to public health and medical emergencies, and served as a focal point for operational and policy coordination with the White House, other federal de-

partments, Congress, state and local officials, private sector leaders, and international authorities responsible for emergency medical preparedness and the protection of the civilian population from acts of terrorism and other public health emergencies. Dr. Parker was a 2009 recipient of the Distinguished Executive Presidential Rank Award.

Recently, Dr. Gerald W. Parker, Jr. served as the Deputy Assistant Secretary of Defense for Chemical and Biological Defense from November 2010 to October 2013. In addition, Dr. Parker served 26 years of distinguished active U.S. Army service is a former Commander and Deputy Commander of the U.S. Army Medical Research Institute of Infectious Diseases. Dr. Parker graduated from Texas A&M University with a Bachelors of Science in Veterinary Medicine and with a degree of Doctor of Veterinary Medicine. He holds a Doctorate in Physiology from Baylor College of Medicine in Houston, Texas and a Masters of Science in Resourcing the National Strategy from the Industrial College of the Armed Forces.

## Recognizing the versatile roles veterinarians play in support of the NBSB

Veterinarians have played important roles in the National Biodefense Science Board (NBSB) since its inception. A veterinarian was instrumental in adding language in Section 402 of the Pandemic and All-Hazards Preparedness Act (2006) which established the NBSB. As we move towards a more cohesive One Health view in Public Health, the veterinarian has an increasingly important role to play in protecting the nation against threats that may be chemical, biological, radiolog cal or nuclear in nature. Veterinary medical training provides a great background for veterinarians to serve in federal advisory boards with the focus on Biodefense policies. Veterinarians understand the human-animal relationship as it relates to zoonotic disease transmission and how zoonotic diseases such as Anthrax and Influenza Viral infections pose a threat to the nation's security. The National Biodefense Science Board utilizes the expertise and talents of veterinarians and many other scientific disciplines all of which contributes to the completion of its mission Public Health Veterinarians have served in the role of the Executive Director for the NBSB for several years and the current Executive Director is a Veterinary Medical Officer in United States Public Health Service Commissioned Corps. The Execu tive Director or the Designated Federal Officer (DFO) is selected by the Assistant Secretary for Preparedness and Response. The Executive Director/DFO attends each NBSB meeting and ensures that all procedures are within applicable statutory, regulatory, and the Department of Health and Human Services (HHS) General Administration Manual directives. In addition, the Executive Director/DFO approves all meeting agendas, calls all of the Committee and subcommittee meetings, and adjourns any meeting if determined to be in the public's best interest. The NBSB consists of 13 voting members, including the Chairperson; additionally there are non-voting ex officio members. Currently, two Veterinarians from the

served as ex officio members from the Department of Defense and the Office of Science and Technology Policy.

In addition, several veterinarians have participated in NBSB Working Groups (WGs). One such WG is the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) Strategic Implementation Plan (SIP) WG in which a Veterinarian serves as the Executive Secretariat. As part of the Department of Health and Human Services' (HHS) role in periodically assessing strategies and capabilities to advance the nation's preparedness in light of changing scientific and fiscal circumstances, the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) was established. The first Principal Deputy Assistant Secretary in the Office of the Assistant Secretary for Preparedness and Response, a veterinarian, played an integral role the establishment of the PHEMCE in 2005. The PHEMCE is the coordinating body for the federal agencies in charge of protecting the civilian population from potential adverse health impacts of chemical, biological, radiological, and nuclear (CBRN) agents and emerging infectious diseases through the use of medical countermeasures (MCM), medicines, devices, or other medical interventions that can lessen the harmful effects of these threats. The PHEMCE SIF WG performed an analysis and review of the 2012 PHEMCE SIP to ensure that the document addresses the most significant threats, supports approaches that build platforms capable of providing protection against multiple threats, and maintains resources to effectively deploy capabilities in the operational setting.

The NBSB utilizes the expertise of veterinarians in different capacities/roles which are equally important. Veterinarians understand the relationship between humans and animals and the public health threat of zoonotic diseases. As a result, veterinarians along with other public health professionals such as physicians, scientists nurses and others have a critical role in protecting the nation against environment tal and man-made threats

- Ex Officio Representative for the Department of Defense
- Medical Countermeasures Research and Development
- Working Group (WG) Member Disaster Medicine WG Member

United States Department of Agriculture (USDA) and the Centers for Disease Con-

Col (Ret.) John P. Skvorak, DVM, PhD

trol and Prevention (CDC) serve as ex officio member. In past years, veterinarians

- Markets and Sustainability WG Member
- Personal Preparedness WG Member
- Dr. John Skvorak is a Senior Science Advisor for Tunnell Government Services currently supporting the US Army Medical Materiel Development Agency on Ft. Detrick in Frederick, Maryland. Dr. Skvorak served as an Army officer in numerous veterinary and medical research assignments in the US and overseas. His past military assignments have included tours as the Commander of the Veterinary General Hospital in Germany; a principal investigator, branch chief, and division director in US Army Medical Research and Materiel Command (USAMRMC) laboratories; the Research Area Director for Chemical and Biological Defense; and the Medical Assistant to the Joint Program Executive Officer for Chemical and Biological Defense (JPEO-CBD). Dr. Skvorak concluded his military career as the Deputy Commander and Commander of the US Army Medical Research Institute of Infectious Diseases (USAMRIID). Dr. Skvorak retired from active duty as a Colonel in January 2012.

Dr. Skvorak received a Bachelor of Science and Doctor of Veterinary Medicine from the University of Illinois. He also completed a PhD in Physiology at the University of South Florida College Of Medicine and received a Masters in Strategic Studies from the US Army War College. He has authored and co-authored over 20 manuscripts and book chapters and is a Diplomate Emmeritus in the American Board of Veterinary Practitioners. Dr. Skvorak is acquisition certified in Program Management (Level II) and Systems Planning, Research, Development and Engineering (Level II). In addition, Dr Skvorak's awards and decorations include the Legion of Merit, Meritorious Service Medal (6), Army Commendation Medal, Army Achievement Medal (2), National Defense Service Medal (2), and the Global War on Terrorism Service Medal. Dr. Skvorak was awarded the Expert Field Medical Badge, is a member of the Order of Military Medical Merit, and held the Surgeon General's "A" Proficiency Designator for Veterinary Comparative Medicine.

#### Dr. Joseph F. Annelli, DVM, MS

#### Support to the NBSB:

- Ex Officio Representative for the United States Depart
  - ment of Agriculture (USDA) (2005-2009)
- Disaster Medicine Working Group Member
- Dr. Joseph Annelli is currently Director of the One Health Coordination Office and the Senior Advisor for Agriculture and Health Systems lo cated in the Office of the Deputy Administrator for Veterinary Services at the US

Department of Agriculture. He leads the One Health Coordination Office and assists Veterinary Services and USDA in implementing the One-Health principles of applying an interdisciplinary approach and joint strategies to resolve issues at the human-animal-ecosystem interface to improve both human and animal health. Ir addition, Dr. Annelli was Director of Emergency Programs for Veterinary Services when he and his staff activated the National Disaster Medical System resources to assist in an Avian Influenza Outbreak in Virginia and deployed 350 veterinarians to the United Kingdom to assist with a major Foot and Mouth Disease outbreak. Dr. Annelli was instrumental in re-writing ESF-11 of the National Response Plan to include care of pets in disasters. At the beginning of the global concerns for highly pathogenic H5N1 avian influenza and the possibility of an emerging pandemic, Dr. Annelli was detailed to the Office of the Secretary as liaison to the White House Homeland Security Council on Avian Influenza issues for USDA, and, also served as Director of the International Avian Influenza Coordination Center during the 2009-H1N1 Influenza Pandemic. Dr. Annelli received his DVM from the De La Salle-Araneta University in the Philippines and his MS in Veterinary Medicine and Public Health from the University of Minnesota.

## About the National Biodefense Science Board (NBSB)

The National Biodefense Science Board (NBSB) was created under the authority of the Pandemic and All-Hazards Preparedness Act, signed into law on December 19, 2006.

The NBSB was established to provide expert advice and guidance to the Secretary of the U.S. Department of Health and Human Services (HHS) on scientific, technical, and other matters of special interest to HHS regarding activities to prevent, prepare for, and respond to adverse health effects of public health emergencies resulting from chemical, biological, nuclear, and radiological events, whether naturally occurring, accidental, or deliberate.

On March 4, 2008, the charter of the NBSB was amended to allow the NBSB to provide advice and guidance to the Secretary on other matters related to public health emergency preparedness and re-

By statute, the NBSB has 13 voting members with a broad range of expertise in science, medicine, and public health. Additionally, there are non-voting ex officio members, as deemed appropriate by the Secretary.

#### Dr. David R. Franz , DVM, PhD

 Member – Public Health Emergency Countermeasures Enterprise (PHEMCE) Strategic Preparedness Goals Work-

Dr. Franz served in the U.S. Army Medical Research and Materiel Command for 23 of 27 years on active duty and retired as Colonel. He served as Commander of the U.S. Army Medical Research Institute of Infectiou Diseases (USAMRIID) and as Deputy Commander of the Medical Research and Materiel Command. He was Technical Editor for the Textbook of Military Medicine on Medical Aspects of Chemical and Biological Warfare released in 1997 Current standing committee appointments include the National Academy of Sciences Committee on International Security and Arms Control, the National Research Council Board on Life Sciences and the Department of Health and Human Services National Science Advisory Board for Biosecurity. He serves on the National Biodefense Analysis and Countermeasures Center's Science and Technology Advisory Committee and the Board of Integrated Nano-Technologies LLC. Dr. Franz holds an adjunct appointment as Professor for the Department of Diagnostic Medicine and Pathobiology at the College of Veterinary Medicine, Kansas State University. The current focus of his activities relates to the role of international engagement in the life sciences as a component of national security policy. Dr. Franz holds a D.V.M. from Kansas State University and a Ph.D. in Physiology from Baylor College of Medicine.



#### **Dr. Sam Groseclose**

- Alternate, Ex Officio Representative for the CDC
- Strategic National Stockpile 2020 Working Group (WG)
- Situational Awareness and Strategic Implementation Plan WG Member
- Biosurveillance WG Member

Dr. Sam Groseclose is Associate Director for Science and Public Health Practice in the Office of Public Health Preparedness and Response (OPHPR). He leads the Office of Science and Public Health Practice which coordinates and promotes the activities of the OPHPR Board of Scientific Counselors, the OPHPR Extramu ral Research Program, and fosters the application of science to improve public health practice in preparedness and response (Additional information available at: <a href="http://www.cdc.gov/phpr/science.htm">http://www.cdc.gov/phpr/science.htm</a> ). Prior to joining OPHPR in January 2012, Dr. Groseclose was the Associate Director for Science in the Division of Notifiable Diseases and Healthcare Information and served as an Acting Division Director in CDC's Public Health Surveillance Program Office (PHSPO) – contributing to the management of the BioSense Program, an all-hazard, near real-time electronic surveillance system and the National Notifiable Diseases Surveillance System and directing several surveillance evaluation projects.

Dr. Groseclose holds a veterinary medical degree from The Ohio State University, a Master of Public Health from The Johns Hopkins University, and a Bachelor of Science in biology from Hampden-Sydney College. He was an Epidemic Inte ligence Service Officer (1991-93) assigned to the Connecticut Department of Health Services. Dr. Groseclose is a Diplomate of the American College of Veteri nary Preventive Medicine and member of the College's Epidemiology Specialty.



#### Dr. Cheryl Stroud DVM, PhD

- Situational Awareness-Strategic Implementation Plan Working Group (WG) Member
- Biosurveillance WG Member

## Dr. Cheryl Stroud is the Executive Director of the One

Health Commission (OHC). She was selected to be the AVMA representative to the OHC (<a href="http://www.onehealthcommission.org/">http://www.onehealthcommission.org/</a>) in 2011, was appointed Vice Chair of the OHC Board in 2012. Dr. Stroud discovered her passion for One Health in 2008) and was instrumental in 2010 in creation of the North Carolina One Health Collaborative (NC OHC, <a href="http://nconehealthcollaborative">http://nconehealthcollaborative</a>. weebly.com/index.html). For the past three years she has Chaired the NC OHC Steering Committee which includes DVMs, PhDs, MDs and government officials from Duke University, University of North Carolina, NC State University, NC Dept of Agriculture and Consumer Services, NC Dept of Public Health, the NC Zoo, and NIEHS, to name a few. Dr. Stroud believes strongly in interdisciplinary collaborations such as the Commission's recent co-creation with the Global Alliance for Rabies Control (GARC) and Bat Conservation International (BCI) of an international bat rabies education poster campaign and she seeks to facilitate additional Commission collaborations. Dr. Stroud received her DVM from Mississippi State and her PhD from North Carolina State Universities. In addition, she has enjoyed many professional experiences including work in Industry, Academic Research / Teaching and private Veterinary Practice.



### Dr. Michelle M. Colby, DVM, MS

- Ex Officio Representative from the Office of Science and Technology Policy
- Medical Countermeasures Research and Development Working Group (WG) Member
- Disaster Medicine WG Member
- Dr. Michelle M. Colby is currently serving as the Branch Chief for Agricultural Defense in the Chemical and Biological Defense Division (CBD) of DHS's Science and Technology Directorate. She directs all of CBD's research and development efforts related to agricultural defense, including programs in foreign animal disease modeling and advanced development of veterinary countermeasures. Her leadership in efforts related to the licensing of the first Foot-and-Mouth disease vaccine in the U.S. was recognized with the DHS Under Secretary's Award for Science and Technology in 2012 and as a finalist for the Service to America Medal in Homeland Security and Law Enforcement in 2013. In 2009, Dr. Colby served as the Assistant Director for Chemical, Biological, Radiological and Nuclear Countermeasures in the Homeland and National Security Division of the White House Office of Science and Technology Policy (OSTP) where she managed all of OSTP's work on coordinating research and development on countermeasures to chemical, biological, radiological and nuclear threats. Dr. Colby was recognized for her work coordinating federal science policy in agriculture by the University of Maryland College of Agriculture and National Resources Outstanding Alumnus Early Career Award in 2006. She began her career at OSTP as a AAAS/ NTI Global Security Fellow in October of 2003. Dr. Colby received BS degree in Animal Science from the University of Maryland, Eastern Shore, a Doctorate of Veterinary Medicine from the Virginia-Maryland Regional College of Veterinary Medicine, and an MS in Epidemiology from the University of Maryland along with a certificate of residency for completion of the three year applied veterinary epidemiology training program. In addition, Dr. Colby was a post-doctoral research fellow at the Maryland campus of the Virginia-Maryland Regional College of Veterinary Medicine.

## Acknowledgements

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