

February 6, 2018

The Honorable Lamar Alexander  
Chairman  
Committee on Health, Education, Labor & Pensions  
United States Senate

The Honorable Patty Murray  
Ranking Member  
Committee on Health, Education, Labor & Pensions  
United States Senate

The Honorable Greg Walden  
Chairman  
Committee on Energy & Commerce  
United States House of Representatives

The Honorable Frank Pallone, Jr.  
Ranking Member  
Committee on Energy & Commerce  
United States House of Representatives

Dear Senators and Representatives:

The undersigned organizations, representing healthcare providers, hospitals, industry, patients, pharmacists, public health experts, scientists, and advocates are deeply concerned about the serious threat antimicrobial resistant pathogens pose to American health and national security, and are alarmed by the insufficient number of new antimicrobials and diagnostics to combat that threat. We greatly appreciate that the Biomedical Advanced Research and Development Authority (BARDA) is already providing essential support for antimicrobial R&D. However, significant unmet needs persist and new incentives are necessary to ensure that our nation is prepared to respond to the threat of antimicrobial resistance (AMR). We urge you to include new antimicrobial research and development (R&D) incentives as you begin development and consideration of the reauthorization of the Pandemic and All-Hazards Preparedness Act (PAHPA).

More and more Americans are contracting serious and life-threatening infections that are difficult and sometimes impossible to treat, resulting in longer hospital stays, complications of medical treatments such as surgery and chemotherapy, and deaths. According to conservative estimates by the Centers for Disease Control and Prevention (CDC), at least 23,000 Americans die each year from antimicrobial resistant infections, and an additional 2 million become seriously ill. Further, CDC estimates that AMR costs the US health care system an additional \$20 billion in excess costs. Patients with weakened immune systems, such as those with HIV/AIDS, preterm infants, cancer patients, organ transplant donors and recipients, the elderly, or patients treated in intensive care units are at heightened risk, but even healthy young people are contracting and dying from serious, resistant infections.

AMR also poses a significant threat to our national security. Resistant pathogens complicate our soldiers' combat wounds, increasing the risk of limb loss and death, and compromise our military's combat readiness and effectiveness. Between 2004 and 2009, over 3,300 American soldiers in Iraq and Afghanistan became severely ill from a single resistant pathogen—*Acinetobacter*, which has become even more resistant to treatment over time. Alarming, resistant pathogens are also a prime candidate for weaponization by our nation's enemies, both state and non-state actors. The former Soviet Union engineered multidrug-resistant strains of both *Yersinia pestis* and *Bacillus anthracis*—plague and anthrax. Studies have concluded that the aerosolized release of a weaponized, resistant pathogen in just a single incident of bioterrorism in the Washington, DC area would result in a death toll of over 3 million. The death toll from a coordinated bioterrorist attack using a weaponized resistant pathogen would be many magnitudes higher. AMR also puts our health security at risk, both within the US and globally. An outbreak of a serious resistant infection with limited or no treatment options could overwhelm health systems, harm economies and even destabilize communities or entire countries.

The President's Council of Advisors on Science and Technology, CDC, World Health Organization, United Nations, and other expert bodies and individuals have documented the urgent crisis of AMR and called for investment in antimicrobial R&D. Antimicrobial development has dwindled, with most pharmaceutical companies leaving this market. Economic experts agree that incentives are needed to overcome the hurdles that continue to hamper antimicrobial R&D: they are typically inexpensive, used for a short duration, and held in reserve to protect their utility, all of which prevent opportunities to earn a return on R&D investment. Including antimicrobial R&D incentives in PAHPA reauthorization will be critical to ensure that our nation is prepared to respond to threat AMR poses to our health and national security.

We thank you for your leadership on bioemergency preparedness issues, and once again strongly urge you to include antimicrobial R&D incentives as your Committees work to craft a PAHPA reauthorization bill. We look forward to working with you to advance the nation's ability to prepare for and respond to the threat AMR poses to our health and national security.

Sincerely,

Alliance for Aging Research  
Alliance for the Prudent Use of Antibiotics  
American Academy of Allergy, Asthma, and Immunology  
American College of Clinical Pharmacy  
American College of Rheumatology  
American Gastroenterological Association  
American Public Health Association  
American Society for Microbiology  
American Society of Hematology  
American Society of Nephrology  
American Society of Transplant Surgeons  
American Society of Tropical Medicine and Hygiene  
American Thoracic Society  
Antimicrobial Innovation Alliance  
Antimicrobial Working Group (Amplix Pharmaceuticals, Aridis Pharmaceuticals, Arsanis Inc., Cidara Therapeutics Inc., ContraFect Corporation, Iterum Therapeutics Ltd., Melinta Therapeutics Inc., Nabriva Therapeutics US Inc., Paratek Pharmaceuticals Inc., SCYNEXIS Inc., Spero Therapeutics, Inc., T2 Biosystems Inc., Theravance Biopharma U.S. Inc., VPS-3 Inc., Vical Incorporated, and Zavante Therapeutics Inc.)  
Association for Professionals in Infection Control and Epidemiology  
Becton Dickinson & Company  
Biotechnology Innovation Organization (BIO)  
Center for Foodborne Illness Research and Prevention  
Clinician Champions in Comprehensive Antibiotic Stewardship Collaborative  
Da Volterra  
Duke Center for Antimicrobial Stewardship and Infection Prevention

Emory Antibiotic Resistance Center  
Foundation to Combat Antimicrobial Resistance  
Gerontological Society of America  
GlaxoSmithKline  
Global Health Technologies Coalition  
HealthHIV  
HIV Medicine Association  
Janssen  
Johns Hopkins Center for Health Security  
Making-A-Difference in Infectious Diseases  
March of Dimes  
Merck  
National Association of Nurse Practitioners in Women's Health  
National Athletic Trainers' Association  
National Coalition for LGBT Health  
NovaDigm Therapeutics  
Pediatric Infectious Diseases Society  
Peggy Lillis Foundation  
Pfizer Inc.  
RESULTS  
Sepsis Alliance  
Society of Critical Care Medicine  
Society of Hospital Medicine  
Society of Infectious Diseases Pharmacists  
Spero Therapeutics  
The Gerontological Society of America  
The Veterans Health Council  
Trust for America's Health  
Vietnam Veterans of America