

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 (Amplify 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