



PERSONNEL AND  
READINESS

UNDER SECRETARY OF DEFENSE  
4000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-4000

JUN -6 2016

The Honorable Thad Cochran  
Chairman  
Subcommittee on Defense  
Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

This letter provides the final report in response to House Report 114-139, page 284, which accompanied H.R. 2685, the Department of Defense (DoD) Appropriations Bill, 2016, "Combating Antibiotic Resistance." This report includes information on the progress of the DoD's combating antibiotic resistant bacteria (CARB) antimicrobial stewardship programs, including funds obligated to date, coordination with other federal agencies, and plans for subsequent programs.

The DoD received \$16.54 million (M) from the fiscal year 2016 appropriation to combat antibiotic resistant bacteria (\$10.29M within Operations and Maintenance and \$6.25M in Research Development Test and Evaluation (RDT&E)). The \$10.29M targets bacterial surveillance activities, which include the advanced characterization of antibiotic resistant bacteria, data collection and reporting, and the incorporation of information into required stewardship activities. With the RDT&E funds, the DoD is funding discovery efforts for small molecules as novel antimicrobial candidates. This development work, \$3.15M, complements existing efforts within and outside the U.S. Government and takes advantage of existing DoD assets for in-vitro and in-vivo screening and testing. In addition, \$2.06M is going to strengthen research on resistant malarial infections at their source in Southeast Asia, which may decrease future costs to the DoD. Lastly, \$1.04M funds work to identify markers of sepsis that often occur in antibiotic resistant infections. Sepsis, which typically occurs in the remote regions where Service members are deployed, is being investigated as part of the Austere Environment Consortium for Enhanced Sepsis Outcomes Program. The enclosure to this letter provides additional details of the funding obligations for CARB.

The DoD is engaged with other U.S. Government agencies through the CARB Task Force, co-chaired by the Secretary of Defense, the Secretary of Agriculture, and the Secretary of Health and Human Services. The DoD is working with the Department of Veterans Affairs to establish procedures for sharing microbiological data and with the Centers for Disease Control and Prevention (CDC) on procedures for sharing bacteria isolates from the Department of Defense Multidrug-Resistant Organism Repository and Surveillance Network (MRSN). The Department is leveraging its existing successes with the MRSN to enhance the regional laboratory network effort spearheaded by the CDC. The DoD continues to expand its reporting on antibiotic resistance and antibiotic use data to the CDC through the National Healthcare

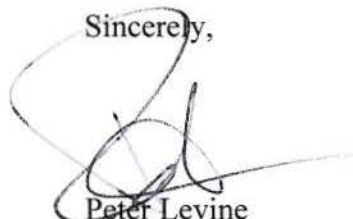
Safety Network as well as to develop useful measurements and outcomes upon which its stewardship program can be bolstered for the betterment of all DoD beneficiaries.

The DoD has begun policy development for the DoD CARB program. A parallel effort is underway to publish a Defense Health Agency Procedural Instruction to identify the procedures for antibiotic stewardship and combating antibiotic resistance throughout the Military Health System. In addition, the DoD is working toward diagnostic and therapeutic medical countermeasure development. The MRSN serves as the centerpiece for many of these efforts, through its repository of clinically relevant characterized pathogens upon which diagnostics and potential therapeutics can be tested.

The estimated cost of this report for the Department of Defense is approximately \$3,200. This includes \$1,300 in expenses and \$ 1,900 in DoD labor. The cost estimate was generated on April 28, 2016; Reference ID 7-C7C9F5A.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families. A similar letter is being sent to the other congressional defense committees.

Sincerely,



Peter Levine  
Acting

Enclosure:  
As stated

cc:  
The Honorable Richard J. Durbin  
Vice Chairman





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JUN - 6 2016

The Honorable John McCain  
Chairman  
Committee on Armed Services  
United States Senate  
Washington, DC 20510

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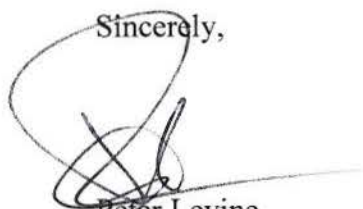
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Sincerely,



Peter Levine  
Acting

Enclosure:  
As stated

cc:  
The Honorable Jack Reed  
Ranking Member





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JUN -6 2016

The Honorable William M. "Mac" Thornberry  
Chairman  
Committee on Armed Services  
U.S. House of Representatives  
Washington, DC 20515

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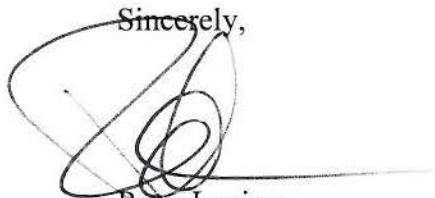
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Sincerely,



Peter Levine  
Acting

Enclosure:  
As stated

cc:  
The Honorable Adam Smith  
Ranking Member





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JUN - 6 2016

The Honorable Rodney P. Frelinghuysen  
Chairman  
Subcommittee on Defense  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

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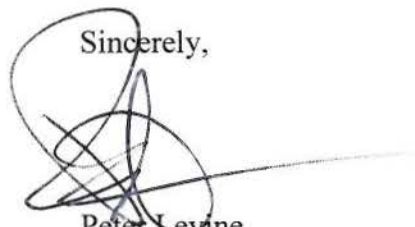
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Sincerely,  
  
Peter Levine  
Acting

Enclosure:  
As stated

cc:  
The Honorable Peter J. Visclosky  
Ranking Member



## Enclosure

### Defense Health Program (DHP)

#### Combating Antibiotic Resistant Bacteria (CARB) Funding for Fiscal Year (FY) 2016

##### Operations and Maintenance

- **\$6.19M** to expand the Multidrug-Resistant Organism Repository and Surveillance Network (MRSN) into a DoD-wide capability. This network is a unique asset that can enable the DoD to identify, collect, characterize, and cryopreserve drug resistant bacteria from (eventually) all DoD military medical treatment facilities (MTFs). It employs state-of-the-art technology (whole genome sequencing) to characterize unique, recurrent, and outbreak strains of bacteria for requesting MTFs, providers, and other stakeholders. It can assist clinicians to make informed decisions in the treatment of patients. This network is important to reduce healthcare costs resulting from CARB.
- **\$2.00M** for characterizing emerging resistance and strains. Funding will allow the DoD to expand its global network of partners for vital surveillance information, thereby enhancing its ability to support global force health protection efforts to identify pathogen resistance profiles and prevalence outside the United States where Service members might deploy.
- **\$0.60M** to support enhancement of the Antimicrobial Drug Resistance and Antibiotic Resistance Monitoring and Research (ARMoR) programs of the MRSN. This includes expansion of the translational database that houses the metadata on antibiotic resistance. The improvement of the ARMoR will enable DoD's compliance with reporting of antibiotic resistance and antibiotic use data into the National Healthcare Safety Network of the Centers for Disease Control and Prevention.
- **\$0.60M** to support, extend, and strengthen DoD partnerships and surveillance networks to facilitate standardized collection of gap-filling anti-microbial resistance information. For example, identifying pathogen resistance profiles, and prevalence in certain areas, informs the ability to provide medical coverage for DoD Service members and beneficiaries in those areas. In addition, funding will enable additional collaboration with Georgetown University (for access to specialized databases) to identify global burden of resistant bacteria in militarily-relevant areas.
- **\$0.30M** to provide staff, primarily for the Navy Marine Corps Public Health Center EpiData Center, to modify and develop the analytical processes and algorithms for use across the Military Health System. Funding provides support for monthly data uploading and annual reporting.
- **\$0.30M** to support a ruggedized point-of-care diagnostic test. DoD surveillance data gleans diverse (microbiologically and geographically) isolates not available to most advanced developers within/outside the DoD or the U.S. Government.
- **\$0.30M** to improve and expand the Pharmacovigilance Center, a critical link to report antimicrobial use data, not otherwise obtainable from outside the DoD, that is critical to developing, monitoring, and evaluating our program.

## Enclosure

### Research Development Test and Evaluation

- **\$3.15M** for the Walter Reed Army Institute of Research Discovery and Wound Program. This program employs existing expertise and technology to develop candidate antibacterial compound(s). This research complements that of other U.S. Government and industry. In addition, it takes advantage of DoD assets for in-vitro and in-vivo screening and testing.
- **\$2.06M** funds an ongoing effort to address resistant malaria in Southeast Asia—an ongoing issue for Service members and DoD civilians deployed to this area of the world. Successfully combating resistance at the source will help moderate future drug development costs.
- **\$1.04M** funds efforts to identify (working with the Austere Environment Consortium for Enhanced Sepsis Outcomes) markers of sepsis that often occur in antibiotic resistant infections overseas in remote environments where our forces may be deployed.