

July XX, 2021

The Honorable Jon Tester
Chairman
Subcommittee on Defense
Committee on Appropriations
122 Dirksen Office Building
Washington, DC 20510

The Honorable Richard Shelby
Ranking Member
Subcommittee on Defense
Committee on Appropriations
122 Dirksen Office Building
Washington, DC 20510

Dear Chairman Tester and Ranking Member Durbin:

As you prepare Fiscal Year 2022 (FY22) appropriations, we are requesting \$12 million to support the Department of Defense's Tick-Borne Disease Research Program (TBDRP), a Congressionally Directed Medical Research Program (CDMRP). The TBDRP was established in FY16 to support innovative and impactful research that addresses fundamental issues and knowledge gaps related to tick-borne diseases, including biological mechanisms (e.g. pathogenesis), prevention strategies, diagnostic tools, and tailored treatments. From FY16 through FY19, Congress appropriated \$5 million per year to TBDRP and in FY20 through FY21, Congress increased TBDRP funding to \$7 million. The TBDRP funds only approximately 13% of the submitted applications, a trend that has continued since the program's inception, and unfortunately leaves worthwhile research tabled or delayed. For FY22, we are requesting \$5 million in additional funding, a \$12 million total, to be appropriated to TBDRP in order to expand its promising research portfolio to benefit U.S. Service members and their families.

Tick-borne diseases are increasingly prevalent across the United States as tick ranges expand—a dispiriting result of climate change. Currently, there are at least 18 known infectious tick-borne pathogens, with 20 conditions and 13 illnesses resulting from tick bites.¹ An especially at-risk population is military forces and their dependents. With approximately 75% of all US military installations located in states where 99% of the tick-borne disease cases occur, exposure to ticks and the diseases they carry is high.² Tick-borne diseases are a threat to U.S. national security, military readiness, and the health and wellness of Service members and their families.³

In its 2018 Report to Congress, the Tick-Borne Disease Working Group recommended that the Department of Defense (DoD) “Commence study of tick-borne disease incidence and prevalence of active duty Servicemembers and their dependents; Compile data on the impact of tick-borne diseases on military readiness; and Create education and preparedness programs that specifically

¹ Tick-Born Disease Working Group. 2018. Report to Congress. See: <https://www.hhs.gov/sites/default/files/tbdwgreport-to-congress-2018.pdf> Accessed March 7, 2020.

² Tick-Born Disease Research Program. 2019. Program Highlights. See: https://cdmrp.army.mil/tbdrp/pbbks/tbdrp_programhighlight2019.pdf Accessed March 7, 2020.

³ Rans, Tonya. 2019. Mitigating the Risk of Disease from Tick-borne Encephalitis in U.S. Military Populations. Military Health System. See: <https://health.mil/News/Articles/2019/11/01/Tick-borne-Encephalitis> Accessed March 7, 2020.

address the unique risks faced by Servicemembers in training and on deployment and by their families.”⁴ The DoD has begun to do the needful with its Tick-Borne Disease Research Program, which researches tick-borne disease issues to inform military education, preparedness, and readiness. Yet with only between \$5 and \$7 million appropriated each year, TBDRP’s research mandate remains underfunded. According to data from TBDRP’s grant application peer review process, highly rated research proposals totaling approximately \$4 million per year are unfunded due to TBDRP’s limited financial resources.⁵

With \$12 million in FY22 appropriations, TBDRP will be positioned to support even more promising tick-borne disease research to address Lyme disease, Powassan, Spotted Fever, and more. Additional funding would allow for more research like that of Dr. Charles Chiu of the University of California, San Francisco (UCSF). Dr. Chiu was the recipient of an FY16 TBDRP research award to improve tools for the diagnosis of early Lyme disease and early tick-borne infections.⁶ Accurate tests to diagnose early infection are imperative for effective treatment and improved patient outcomes. Current tests perform poorly at identifying early onset of Lyme and other tick-borne diseases which can result in delayed or inappropriate treatment.^{7,8} Dr. Chiu’s newly developed assays are proving promising for early detection, and his approach to diagnosing Powassan virus has already been put into use at UCSF. Additional resources for TBDRP would mean more funding for high-quality research like that of Dr. Chiu’s, which will lead to necessary advances in tick-borne disease knowledge and response.

This funding is ultimately about our military personnel and their families who are struck by Lyme and tick-borne disease illnesses, marching far too many into forced retirement to care for themselves or their loved ones, directly affecting our military readiness. For example, Col Nicole Malachowski (USAF, ret.), a United States Air Force mission-ready fighter pilot who flew in three operational F-15E fighter squadrons and registered over 188 combat hours in both OPERATION DELIBERATE FORGE and OPERATION IRAQI FREEDOM, is America’s first female Thunderbird pilot, a wife, a mother, and one of many in our armed forces who was forced to prematurely retire due to tick-borne illness. With the research investment in better diagnostics, therapies and hopefully a cure, we can keep America’s finest servicemembers safe and mission-focused.

⁴ Tick-Born Disease Working Group. 2018. Report to Congress. See: <https://www.hhs.gov/sites/default/files/tbdwreport-to-congress-2018.pdf> Accessed March 7, 2020.

⁵ Data collected via internal communication with TBDRP leadership.

⁶ Chiu, Charles. 2016. Development and Validation of a Combined Pathogen-Host Genomic Assay for Diagnosis of Lyme Disease and Other Tick-Borne Infections. Investigator-Initiated Research Award. See https://cdmrp.army.mil/search.aspx?LOG_NO=TB160126 Accessed March 7, 2020.

⁷ Moore A, Nelson C, Molins C, et al. 2016. Current guidelines, common clinical pitfalls, and future directions for laboratory diagnosis of Lyme disease, United States. *Emerg Infect Dis*. Jul;22(7):1169–1177.

⁸ Clark RP and Hu LT. 2008. Prevention of Lyme disease and other tick-borne infections. *Infect Dis Clin North Am*. Sep;22(3):381-396.

We appreciate your ongoing commitment to combating tick-borne diseases through the CDMRP. Moreover, we appreciate your consideration of our request to increase funding to CDMRP at \$12 million in order to build on the necessary work of the Tick-Borne Disease Research Program.

Sincerely,

Senator Gillibrand, Blumenthal, Smith, Markey