

March 17, 2020

The Honorable Peter Visclosky
Chairman
Subcommittee on Defense
House Committee on Appropriations
Washington, DC 20515

The Honorable Ken Calvert
Ranking Member
Subcommittee on Defense
House Committee on Appropriations
Washington, DC 20515

Dear Chairman Visclosky and Ranking Member Calvert:

We write to respectfully request that you provide \$10 million in the Congressionally Directed Medical Research Program (CDMRP) for research on Lyme and other tick-borne diseases (TBD) in the Fiscal Year (FY) 2021 Defense Appropriations bill.

We are grateful that the Committee has been consistently supportive of this important Tick-Borne Disease (TBD) research program at CDMRP since its inception in 2016, and we are looking to enhance this work and meet the demand of an increasing number of Lyme disease cases—cases which the Centers for Disease Control (CDC) has said are underreported by a factor of 10. Thus, we are requesting that you increase the funding from \$7 million to \$10 million in CDMRP for research on Lyme and TBD for FY2021.

Based on TBD's disproportionate burden on military personnel, their families, and civilians alike, we request that you include in the Committee's report the following language: "*The Committee also encourages the Tick-Borne Disease Congressionally Directed Medical Research Program (CDMRP) to intensify its attention toward Lyme disease by specifically including a high proportion of Lyme disease experts on its Tick-Borne Disease Programmatic Panel, including doctors who have experience in chronic Lyme issues, and also on its scientific review panel, to ensure that the burden of Lyme disease is appropriately addressed.*"

According to the CDC's May 4, 2018 Morbidity and Mortality Weekly Report (MMWR), from 2004 to 2016, TBD cases more than doubled and were 77% of all vector-borne disease (VBD) reports; specifically, Lyme disease accounted for 82% of all tick-borne disease cases. As such, continued funding is needed for CDMRP research on Lyme and other TBD. Especially important is including the development of more sensitive and accurate diagnostic tests for Lyme and to increase understanding of the full range of Lyme disease processes, as well as the numerous mechanisms that may allow organisms to persist post treatment. Using the currently available diagnostic tests, almost half of those with Lyme—especially and including our service personnel—remain untreated, permitting the disease to disseminate. Those Lyme victims may become severely disabled and may be unable to return to military service.

The discovery of a new strain of Borrelia bacteria, *Borrelia mayonii*, that causes Lyme disease in addition to *Borrelia burgdorferi* (*Bb*), and other recently discovered TBD—that have

been emerging since TBD were first included in the CDMRP program in FY16—greatly underscore the need for increased funding. Additionally, a recent CDC study shows that the ticks which cause Lyme disease are now found in half of all U.S. counties, putting our service members at great risk.

In a 12-year surveillance period (2000-2011), Lyme disease accounted for 70% of all reported vector-borne or zoonotic diseases in the Air Force Events Surveillance System, and 39% of all such diseases at Navy and Army health facilities (Medical Surveillance Monthly Report (MSMR) October 2012). In a 7-year surveillance period (2010-2016), including all active and reserve component service members in the Army, Navy, Air Force, or Marine Corps who accessed care paid for by the Military Health System, Lyme accounted for 50% of confirmed VBD cases.

The MSMR, a publication of the Armed Forces Health Services Center, has cautioned about the dangers of tick-borne diseases, of which Lyme is the most common, to military readiness. The May 2014 MSMR recognizes that “Military service members may be at increased risk for acquiring Lyme disease, compared to the general population, because their training activities often require that they spend substantial time outdoors, often in or near wooded or grassy areas where infected ticks are endemic.” Similarly, an article in the April 2019 MSMR states, “Lyme disease poses both a challenge to healthcare providers in the Military Health System and a threat to military readiness.”

Specifically addressing Lyme disease and its impact on military readiness, the AF Aerospace Medicine Waiver Guide (Sep. 16, 2019), states that, “if untreated, then aeromedical concerns of this disease are its debilitating effects in regard to the neurologic, cardiovascular, and arthritides that may result. Neurocognitive impairment, cardiac arrhythmias and arthritic pain are all manifestations that could impact the safety of the individual and the mission.” The Navy Aeromedical Reference and Waiver Guide (Sep. 04, 2019), states, “The condition or its sequelae can adversely affect the flight performance, mission, or safety. This condition is disqualifying for aviation.”

The Tick-Borne Disease Working Group 2018 Report to Congress contains the story of retired US Air Force Colonel and F-15 fighter pilot, Nicole Malachowski, who eventually was found to have neurological tick-borne diseases:

“One day while leading a formation of F-15E fighter aircraft back from a training mission, I was overcome by an overwhelming sense that my aircraft was turning left, though it was not; and I could not get my hands to activate the switch that I had activated thousands of times. After I finally managed to activate the switch, I realized that I could not speak. Fortunately, my experienced wingman led us home, and the instructor pilot in my jet performed backseat landing. However, that day marked the beginning of my medical odyssey. In the following four years, I saw more than twenty doctors across eight specialties. My neurological symptoms continued to worsen, but none of the doctors knew why and some suggested it was all in my head. I was suffering from intensifying fatigue, joint and muscle pain, vestibular issues, ocular manifestations, sensory problems, cognitive dysfunction,

and the list goes on. I was misdiagnosed with everything from possible multiple sclerosis, to autoimmune disease, to fibromyalgia. Eventually I could no longer work in the military as a fighter pilot, and the military began steps to medically retire me. At the age of 43, I was permanently, medically retired from the career I loved, after having served in the military for more than 21 years.”

While a threat to U.S. military personnel worldwide, the highest incidence of Lyme disease among active duty service members in the U.S. is in the Northeast (MSMR May 2014). The unit locations with the highest absolute incident cases during 2004-2013 were Naval Submarine Base New London, CT; Marine Corps Air Station Cherry Point, NC; Andrews Air Force Base, MD; and Fort Drum, NY.

In 2016, the Southern New York area—which includes the U.S. Military Academy (USMA) at West Point—had the highest burden of Lyme disease in the U.S., with reported infection rates of ticks with *Bb* as high as 55%. As reported in the MSMR April 2019, in the past few years, Lyme has resulted in the removal of at least two cadets from the USMA because of medical ineligibility for commissioning. In addition, two recently commissioned Second Lieutenants were discharged from the Army because of medical issues as a result of “chronic Lyme.”

Many critical research gaps need to be closed for the effective management—prevention, diagnosis, and treatment—of tick-borne diseases, most prevalently Lyme disease, which have such a devastating impact on both U.S. military and civilian populations.

Thank you for your consideration of this important request and we look forward to working with you to ensure we are safeguarding the operational capabilities of our Armed Forces and protecting the health of U.S. service members and their dependents.

Sincerely,

CHRISTOPHER H. SMITH
Co-Chair, Lyme Disease Caucus

COLLIN C. PETERSON
Co-Chair, Lyme Disease Caucus