

United States Senate

WASHINGTON, DC 20510

July 6, 2021

The Honorable Jon Tester
Chairman
Appropriations Subcommittee on Defense
113 Dirksen
United States Senate
Washington, DC 20510

The Honorable Richard Shelby
Ranking Member
Appropriations Subcommittee on Defense
711 Hart
United States Senate
Washington, DC 20510

Dear Chairman Tester and Ranking Member Shelby:

As your Subcommittee begins work on the Fiscal Year 2022 (FY22) Defense Appropriations bill, we respectfully request adequate funding for the Gulf War Illness Research Program (GWIRP) within the Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP). We also thank you for providing the program \$22 million in FY21.

By congressional design, the GWIRP is a unique medical research program narrowly focused on improving the health and lives of Veterans with Gulf War Illness (GWI). Reports by the National Academy of Sciences (NAS) and government committees have shown that GWI is likely caused by toxic exposures, affects up to one-third of the nearly 700,000 veterans who served in the 1991 Gulf War, and includes debilitating symptoms typically characterized by "some combination of widespread pain, headache, persistent problems with memory and thinking, fatigue, breathing problems, stomach and intestinal symptoms, and skin abnormalities."¹ Recent GWIRP-funded research has provided further evidence that GWI remains a serious, debilitating, and unrelenting health issue, having worsened over time among these veterans, including female Gulf War veterans.^{2,3}

The treatment-focused GWIRP funds research to unravel GWI's underlying pathobiology, improving its definition and diagnosis, and developing treatments. The growing body of GWIRP-funded results published in peer-reviewed scientific journals demonstrates encouraging progress. Despite the challenges of the COVID-19 pandemic, a first-ever *Gulf War Illness State of the Science Conference* was held entirely online last August with 67 presentations of GWIRP-funded GWI research, 42 presentations on GWI and other health issues by VA, a Gulf War veteran panel, and hundreds of researcher and Veteran attendees.⁴ Promising pilot studies funded by the GWIRP are now progressing to larger-scale clinical trials, including by the GWIRP-funded Gulf War Illness Clinical Trials and Interventions Consortium (GWICTIC). This positive progress is the direct result of clear, treatment-focused congressional direction, stable appropriations, and effective management. Some recent results funded by the GWIRP include:

¹ National Academy of Sciences, Institute of Medicine, "*Gulf War and Health, Volume 8: Update of Health Effects of Serving in the Gulf War*," 2010; Research Advisory Committee on Gulf War Veterans' Illnesses, U.S. Department of Veterans Affairs, "*Gulf War Illness and the Health of Gulf War Veterans: Research Update and Recommendations, 2009-2013*," 2014.

² Yee MK et al, "Longitudinal Assessment of Health Symptoms in Relation to Neurotoxicant Exposures in 1991 Gulf War Veterans: The Ft. Devens Cohort," *J Occup Environ Med*, 2020 Sep;62(9):663-668:
<https://doi.org/10.1097/JOM.0000000000001910>

³ Sullivan K, et al, "Prevalence and Patterns of Symptoms Among Female Veterans of the 1991 Gulf War Era: 25 Years Later," *J Womens Health (Larchmt)*, 2020 Jun;29(6):819-826: <https://doi.org/10.1089/jwh.2019.7705>

⁴ CDMRP, "Joint VA/DoD Gulf War Illness State of the Science Conference Draws Hundreds of Researchers and Veterans: Online Event Coincides with 30-Year Anniversary of Operation Desert Shield," 2020:
https://cdmrp.army.mil/gwirp/research_highlights/20Goldman_highlight

- The persistence of GWI symptoms may be explained in part by elevated intracellular calcium levels in brain cells (neurons), found in a rat model of Gulf War toxic exposures; analysis showed promising new treatment targets for GWI-related neurological problems.⁵
- Prior GWIRP-funded research found evidence of increased autoantibodies of central nervous system proteins in GWI; that earlier finding was confirmed and validated in a much larger sample, providing evidence to support a blood test as an objective measurement of GWI.⁶
- Some GWI symptoms appear to be reduced by new treatments tested in successfully completed high-risk/high-reward pilot studies funded by the GWIRP.^{7,8}

The discoveries through the GWIRP continue to represent encouraging steps toward achieving the goals articulated by the NAS “to speed the development of effective treatments, cures, and, it is hoped, preventions,” which are also important for current and future U.S. forces at risk of similar exposures and outcomes. Indeed, the GWIRP is a model of how to conduct treatment-oriented research to address complex toxic exposure health outcomes and is succeeding where earlier programs failed. Its two-tier peer-reviewed and highly competitive research funding process ensures the independence and value of the results produced. Unlike the VA’s intramural research program, which only funds VA researchers, the GWIRP seeks out and funds research led by any combination of government, academic, or private-sector researchers and research teams.

We respectfully request that you provide the necessary resources in the FY22 Defense Appropriations bill to support this vital and effective program as it progresses into more advanced, larger-scale clinical trials – a development indicative of the GWIRP’s steady progress, but one that comes with well-justified, added costs. Furthermore, it remains critical to the program’s success and accountability that the GWIRP is retained as a stand-alone program within the CDMRP and not be combined as a topic area within broader, less-targeted research programs.

Thank you for your consideration of our request, which is supported by: Blinded Veterans Association, Burn Pits 360, California Communities Against Toxics, Cease Fire Campaign, Disabled American Veterans, Fleet Reserve Association, Iraq and Afghanistan Veterans of America, Jewish War Veterans of the USA, Military Order of the Purple Heart, Military-Veterans Advocacy, National Veterans Legal Services Program, National Vietnam & Gulf War Veterans Coalition, Paralyzed Veterans of America, Reserve Organization of America, Sergeant Sullivan Circle, Service Women’s Action Network, The Quinism Foundation, Tragedy Assistance Program for Survivors, United Soldiers and Sailors of America, Veteran Warriors, Veterans and Military Families for Progress, Veterans for Common Sense, Veterans of Foreign Wars, VetsFirst, and Vietnam Veterans of America.

Sincerely,

⁵ Phillips KF, et al, “Calcium Hypothesis of Gulf War Illness: Role of Calcium Ions in Neurological Morbidities in a DFP-Based Rat Model for Gulf War Illness,” *Neurosci Insights*, 2020; 15: 2633105520979841: <https://doi.org/10.1177/2633105520979841>

⁶ Abou-Donia M et al, “Using Plasma Autoantibodies of Central Nervous System Proteins to Distinguish Veterans with Gulf War Illness from Healthy and Symptomatic Controls,” *Brain Sciences*, 2020, 10(9), 610: <https://doi.org/10.3390/brainsci10090610>

⁷ Donovan E, et al, “A Placebo-Controlled, Pseudo-Randomized, Crossover Trial of Botanical Agents for Gulf War Illness: Curcumin (*Curcuma longa*)...and French Maritime Pine Bark (*Pinus pinaster*),” *Int. J. of Environ. Resch & Public Health*, 2021 Mar; 18(5): 2468: <https://doi.org/10.3390/ijerph18052468>

⁸ Holton KF, et al, “The low glutamate diet effectively improves pain and other symptoms of Gulf War Illness,” *Nutrients*, 2020 Aug 26;12(9):2593: <https://doi.org/10.3390/nu12092593>



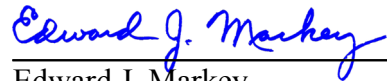
Tammy Baldwin
United States Senator



Tina Smith
United States Senator



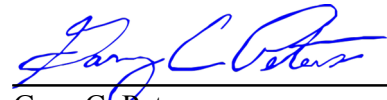
Tammy Duckworth
United States Senator



Edward J. Markey
United States Senator



Sheldon Whitehouse
United States Senator



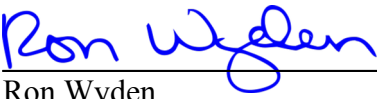
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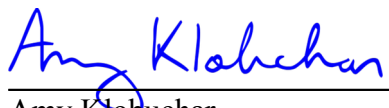
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Ron Wyden
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Debbie Stabenow
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Amy Klobuchar
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Bernard Sanders
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