

Gulf War Illness Research Program

Gulf War illness (GWI) may affect as many as 250,000 of the 700,000 deployed Veterans of the 1990–1991 Gulf War: GWI is characterized by persistent symptoms such as widespread pain, cognitive and memory difficulties, debilitating fatigue, muscle and joint pain, gastrointestinal problems, respiratory symptoms, chronic headache, sleep problems, rashes, and other abnormalities that are not explained by established medical diagnoses or standard laboratory tests. The CDMRP Gulf War Illness Research Program (GWIRP) prioritizes translational research facilitating expeditious testing of treatments for Veterans with GWI. Medical technologies and treatments developed as part of the GWIRP can be leveraged to support healthy and fit military forces and their families.

VISION

Improved health and lives of Veterans who have Gulf War illness

MISSION

Fund innovative Gulf War illness research to identify effective treatments and accelerate their clinical application, improve definition and diagnosis, and better understand pathobiology and symptoms

PROGRAM HISTORY

The GWIRP was established by Congress in 2006 to support research focused on improving treatments for GWI. The GWIRP has received a total of \$192 million (M) in Congressional appropriations, including \$22M in FY19. From these appropriations, the program has built a broad research portfolio of over 160 projects that includes clinical trials of FDA-approved treatments and nutraceuticals, mechanistic research, and studies

addressing chemical exposures and GWI symptomatology. The greatest emphasis has been placed on identifying and testing potential treatments and objective measures and markers for GWI. GWIRP-funded multi-institutional research consortia have proven to be an effective mechanism for fostering collaboration and rapid communication of research findings between investigators in all phases of research.

Our GWIRP Strategic Plan, outlining high-impact research goals most important to stakeholders and providing a framework that is adaptable to changes in the medical research environment, is available here https://cdmrp.army.mil/gwirp/pdfs/GWIRP%20Strategic%20Plan.pdf.

HIGH-IMPACT ADVANCES SUPPORTED BY THE GWIRP

The GWIRP challenges the scientific community to design high-impact research that will improve the health and lives of Veterans who have GWI. The GWIRP has compiled a list of various research and Veteran resources produced from our funding. This effort is intended to facilitate collaborations, speed GWI research, and serve as an information source.

To access these resources, please visit http://cdmrp.army.mil/gwirp/resources/gwirpresources.shtml.

AVAILABLE RESOURCES:

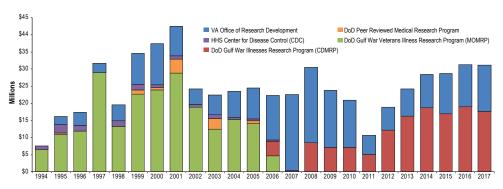
- GWI-Linked Biomarkers
- · Multi-Omic GWI Datasets
- · GWI Animal Models

- · GWI Veteran Cohorts
- Completed and Ongoing GWI Treatments/Interventions
- · GWI Biorepositories

INTERAGENCY COLLABORATION

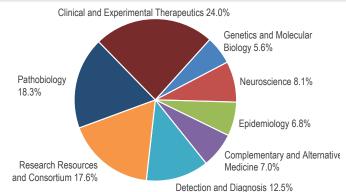
From FY92-FY17 the Department of Veterans Affairs (VA), DoD, and Department of Health and Human Services funded over 500 distinct projects related to health problems affecting Veterans with GWI. Since 2008, the GWIRP and VA have been the sole funders of GWI research. The scope of the federal research portfolio is broad, from small pilot studies to

large-scale epidemiology studies involving large cohorts. Each year the VA, with input from the GWIRP, prepares an Annual Summary to Congress on federally sponsored research on GW Veterans' Illnesses. A goal of the GWIRP is to coordinate activities in order to maximize combined program impact. Federally sponsored GWI research funding is summarized in the chart to the right.



PROGRAM PORTFOLIO

The award mechanisms offered by the GWIRP have evolved over the years as the field of GWI research has advanced. At the GWIRP's inception, funding for basic mechanistic research was offered to elucidate the molecular and genetic processes underlying GWI. As GWI research has progressed, awards supporting preclinical and clinical research were offered with the goal of identifying novel treatments for Veterans with GWI.



FY12-FY14 FY15-FY16 **FY17** FY06-FY11 **Treatment** Treatment Treatment Treatment PRIORITY GAP Clinical Translation Quality of Life **Basic Research** Preclinical Research Disease Models Research Resources Detection Diagnosis Detection **Focused Topics** Consortia **New Investigators OPPORTUNITIES** Clinical Trial · Clinical Trial Clinical Trials Clinical Consortium Innovative Treatment Innovative Treatment Treatment Evaluation Qualitative Research **FUNDING** Clinical Partnership Biorepository Evaluation Evaluation Investigator-Initiated Investigator-Initiated Investigator-Initiated Investigator-Initiated Focused Research Focused Research Research Research Epidemiology Consortium New Investigator 56 Awards 51 Awards 48 Awards 10 Awards

WHAT GULF WAR VETERANS ARE SAYING



"I've been a consumer reviewer for 5 years. In that time, as technology has advanced exponentially, I've seen CDMRP-funded studies produce some very pertinent results. Each year, I see new proposals build upon the results of previous studies as researchers work to find treatments to help our Veterans.

Consumer reviewers bring the Veterans' voice to the table and help focus the science on real human impact. Our opinions carry the same weight as the rest of the panel, allowing us to measure the impact in real life. This is a key part in why CDMRP is so important to our Veterans."

- Peter Greene, Consumer Peer Reviewer



"With the understanding that quality research and development is a slow, painstaking process and that 25 years is a long time for Veterans to wait for answers, I am excited that Gulf War Illness research is moving towards more human subjects studies with practical applications. I have a deep respect for the

entire CDMRP team and the fact that consumer reviewers are treated as equal partners. Overall, my experience has given me a renewed respect for the scientific process."

– Vera Roddy, Consumer Member of External Advisory Board for the Gulf War Illness Clinical Trials and Interventions Consortium