

Appendix C

Project Funding

(As of September 30, 2016)

NOTES ON REVISED TABLE OF SPENDING FOR GULF WAR VETERANS' ILLNESSES RESEARCH FROM FY 2007-2016

General Notes

1. All entries for research funding reflect money centrally obligated to researchers (both intramural and extramural) to carry out the specific projects. These funds also cover operational costs for administration, infrastructure, etc. Each department allocates these costs in slightly different ways, making it difficult to completely account for these funds. For example, in VA the research appropriation does not pay for clinician/investigator salaries. By law those funds must come from the patient care appropriation. These salary costs are not included in the obligated costs listed in the table.
2. A "blank" funding entry generally reflects years in which a project was not active (e.g., it had not started or it had come to an end).
3. Some multiyear projects receive all of their funding in the fiscal year of the authorization and appropriation. For those, the dollars authorized and obligated are shown for that fiscal year. The remaining funding entries show \$0 for the years that the project is active.
4. Although all projects funded from FY 1992-2016 are listed, only the financial data for FY 2007-2016 (a 10-year window) are shown in Appendix C; Totals for FY 2007-2016 do not include funds obligated in FY 1992-2006. Projects that received all of their obligated funds prior to FY 2007 will, therefore, appear in the table as having no funding.
5. Some intramural projects/programs are supported out of operational costs. For those projects, \$0 is entered for the funds in the fiscal years that the project is active.
6. Programs consisting of multiple projects are represented in one of two ways depending on how funds are centrally obligated:
 - a. **Funds centrally obligated to the program:** These programs are shown in the table as a main program indicated by project designation such as DoD-1, and projects within the program as DoD-1A, DoD-1B, etc. All funds are shown under the main program. Blank funding entries are shown for the individual projects.
 - b. **Funds centrally obligated to projects within a program:** The funds for these programs are only indicated by their projects without a main program identifier, for example, VA-2A and VA-2B.

Specific Notes

1. DoD-4 was part of a larger US Army study conducted at Walter Reed Army Institute of Research. Funding for this project has been combined into project DoD-23. In addition, projects DoD-8A and 8B were part of a larger US Army study in which all funding has been combined and is shown under program DoD-8.
2. HHS-3 was funded from the FY'91 appropriation, which is not included in this accounting.
3. HHS-4 was funded from the FY'93 appropriation, which is not included in this accounting.
4. Funds for VA-1 for FY'94 through FY'97 represent an aggregate of funds for both the VA Mortality Study and the VA National Survey of Persian Gulf Veterans. Beginning in FY'98, VA-1 reflects continuation of the VA Mortality Study. Beginning in FY'98, VA-2A, 2B, and 2C reflect funding for separate components of the VA National Survey of Persian Gulf Veterans.
5. In nine instances (DoD-115 & VA-062, DoD-116 & VA-063, DoD-116A & VA-063A, DoD-116B & VA-063B, DoD-118 & VA-061, DoD-119 & VA-055, DoD-125 & VA-074, DoD-143 & VA-078, and DoD-154 & VA-88), two different designations represent the same project because both DoD and VA funded them jointly. The total funding appropriated for each of these nine projects is broken down and reported separately by funding agency.

Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-001	Naval Health Study Program	C											\$0
DoD-001 A	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; A Study of Symptoms Among 1500 Seabees	C											\$0
DoD-001 B	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; Study 2: A Comparative Study of Hospitalizations among Active-Duty Personnel Who Participated in the Gulf War and Similar Personnel Who Did Not.	C											\$0
DoD-001 C	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; Study 3: A comparative study of pregnancy outcomes among GW Veterans and other active-duty personnel	C											\$0
DoD-001 D	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; Study 4: Infertility and Miscarriage in GW Veterans	C											\$0
DoD-001 E	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; Study 5: Seabee Health Study	C											\$0
DoD-001 F	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; Study 6: A Comparison of Nonfederal Hospitalization Experience Among Veterans in California who have separated from active service: GWV vs. NDV	C											\$0
DoD-001 G	Epidemiologic Studies of Morbidity Among GW Veterans: A Search for Etiologic Agents and Risk Factors; Study 7: Prevalence of Congenital Anomalies Among Children of Persian GW Veterans	C											\$0

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Status: C=Complete; O=Ongoing

Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-002	Physiological and Neurobehavioral Effects in Rodents from Exposure to Pyridostigmine, Fuels, and DEET	C											\$0
DoD-004	The General Well-Being of Gulf War Era Service Personnel from the States of Pennsylvania and Hawaii: A Survey	C											\$0
DoD-007 A	Health Risk Assessment of Embedded Depleted Uranium: Behavior, Physiology, Histology, and Biokinetic Modeling	C											\$0
DoD-007 B	Carcinogenicity of Depleted Uranium Fragments	C											\$0
DoD-008	Program DoD-8.	C											\$0
DoD-008 A	Serologic Diagnosis of Viscerotropic Leishmaniasis (VTL)	C											\$0
DoD-008 B	Development of a Leishmania Skin Test Antigen (LSTA)	C											\$0
DoD-009	Identification of the Genetic Factors Which Control Tropism in Leishmania	C											\$0
DoD-010	Pyridostigmine Synergistic Toxicity Study	C											\$0
DoD-011	Male/Female Differential Tolerances to Pyridostigmine Bromide	C											\$0
DoD-013	Effects of Persian Gulf War Service on Military Working Dogs	C											\$0
DoD-014	Risk Factors Among US Army Soldiers for Enrolling on the Department of Veterans Affairs Gulf War Registry	C											\$0
DoD-015	Comparative Mortality Among US Military Personnel Worldwide During Operations Desert Shield and Desert Storm	C											\$0
DoD-016	Kuwait Oil Fire Health Risk Assessment	C											\$0
DoD-017	Retrospective Studies Involving Military Use of Pyridostigmine as a Pretreatment for Nerve Agent Poisoning	C											\$0
DoD-018	Kuwait Oil Fires Troop Exposure Assessment Model (TEAM)	C											\$0
DoD-019	Persian Gulf Veterans Health Tracking System	C											\$0

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-021	Study of Variability In Pyridostigmine Inhibition of Blood Cholinesterases in Healthy Adults and Individuals With Symptoms Following Participation in Operation Desert Storm	C											\$0
DoD-022	Chronic Organophosphorus Exposure and Cognition	C											\$0
DoD-023	Acute and Long-Term Impact of Deployment to Southwest Asia on the Physical and Mental Health of Soldiers and their Families	C											\$0
DoD-030	Epidemiological Studies Persian Gulf War Illnesses, PG Women's Health Linkage Study	C											\$0
DoD-031	Dysregulation of the Stress Response in the Persian Gulf Syndrome	C											\$0
DoD-032	Neuropsychological Functioning in Persian Gulf Era Veterans	C											\$0
DoD-033	Effects of Pyridostigmine in Flinders Line Rats Differing in Cholinergic Sensitivity	C											\$0
DoD-034	Characterization of Emissions from Heaters Burning Leaded Diesel Fuel in Unvented Tents	C											\$0
DoD-035	Feasibility of Investigating Whether There is a Relationship Between Birth Defects and Service in the Gulf War.	C											\$0
DoD-036	Fatigue in Persian Gulf Syndrome- Physiologic Mechanisms	C											\$0
DoD-037	Neurobehavioral and Immunological Toxicity of Pyridostigmine, Permethrin, and DEET in Male and Female Rats	C											\$0
DoD-038	Diagnostic Antigens of Leishmania tropica	C											\$0
DoD-039	A Controlled Epidemiological and Clinical Study into the Effect of Gulf War Service on Servicemen and Women of the United Kingdom Armed Forces	C											\$0
DoD-040	Psychological and Neurobiological Consequences of the Gulf War Experience	C											\$0
DoD-041	Evaluation of Muscle Function in Persian Gulf Veterans	C											\$0

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-042	The Symptomatic Persian Gulf Veterans Protocol: An Analysis of Risk Factors with an Immunologic and Neuropsychiatric Assessment	C											\$0
DoD-044	Investigation of Seminal Plasma Hypersensitivity Reactions	C											\$0
DoD-045	Air Force Women's Health Surveillance Study	C											\$0
DoD-046	Exploratory Data Analysis with the CCEP Database	C											\$0
DoD-047	Study of Mycoplasmal Infections in GW Veterans	C											\$0
DoD-048	Assessment of Genomic Instability via Chromosome 7 Inversion Frequency in a Gulf-War Syndrome Cohort vs. Selected Control Groups	C											\$0
DoD-049	Diagnosis and Dosimetry of Exposure to Sulfur Mustard: Development of Standard Operating Procedures and Exploratory Research on Protein Adducts	C											\$0
DoD-050	Toxicokinetics of O-Ethyl S-(2-Diisopropylaminoethyl) Methylphosphonothioate [(+)-VX] in Rats, Hairless Guinea Pigs and Marmosets - Identification of Metabolic Pathways	C											\$0
DoD-051	Transgenic Engineering of Cholinesterases: Tools for Exploring Cholinergic Responses	C											\$0
DoD-052	Female Gender and Other Potential Predictors of Functional Health Status Among Persian GW Veterans	C											\$0
DoD-053	Long-Term Effects of Subclinical Exposures to Sarin	C											\$0
DoD-054	Assessment of Subchronic Neurobehavioral and Neuropathologic Effects in Rats Following Low-Level Sarin Exposure	C											\$0
DoD-055	Low-Level Exposure to GB Vapor in Air: Diagnosis/Dosimetry, Lowest Observable Effect Levels, Performance-Incapacitation, and Possible Delayed Effects	C											\$0

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PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-056	Low-Level Sarin Neurotoxicity and Its Modulation by Pyridostigmine	C											\$0
DoD-057	Physiologic Effects of Stress in GW Veterans	C											\$0
DoD-058	Illness Among Persian GW Veterans: Case Validation Studies	C											\$0
DoD-059	Pyridostigmine-induced Neurodegeneration: Role of neuronal Apoptosis	C											\$0
DoD-060	Butyrylcholinesterase Genetic Variants in Persons with Gulf War Illness	C											\$0
DoD-061	Neurophysiologic and Neuropathologic Effects in Monkeys of Low Level Exposures to Sarin, Pyridostigmine, Pesticides, and Botulinum Toxoid	C											\$0
DoD-062	Sarin and Pyridostigmine Interaction under Physical Stress: Neurotoxic Effects in Mice	C											\$0
DoD-063	PGW Veterans: Epidemiological and Clinical Evidence for Residual Organophosphate Neurotoxicity	C											\$0
DoD-064	Individual Differences in Neurobehavioral Effects of Pyridostigmine	C											\$0
DoD-065	Multi-disciplinary Pathophysiologic Studies of Neurotoxic Gulf War Related Syndromes Leading to Diagnosis and Treatment	C											\$0
DoD-066	Testing for mycoplasmal infection replicability of nucleoprotein gene tracking and forensic polymerase chain reaction	C											\$0
DoD-067	Antibacterial Treatment Method Based Upon the Excretion of Dead and Decaying Spherical Bacteria	C											\$0
DoD-069	Five Year Follow-Up of Army Personnel Exposed to Chemical Warfare Agents	C											\$0
DoD-070	War Syndromes from 1900 to the Present: Symptom Patterns and Long-term Health Outcomes	C											\$0

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-071	A Comparison of Post Deployment Hospitalization Between Vietnam and GW Veterans	C											\$0
DoD-072	Long-term Effects of Subchronic Exposure to Sarin, Alone and with Stress or Other Chemicals	C											\$0
DoD-073	Post-deployment Morbid Stress, Behavior and Health: Developing a Model for Predicting Morbidity, Mortality, and other Adverse Outcomes	C											\$0
DoD-074	Relationship of Stress Exposures to Health in GW Veterans	C											\$0
DoD-075	Toxic Interactions of Prophylactic Drugs and Pesticides	C											\$0
DoD-076	Evaluations of Immunotoxicity due to Concurrent Exposure to DEET, Pyridostigmine, and JP-8 Jet Fuel	C											\$0
DoD-077	Percutaneous Absorption of Chemical Mixtures Relevant to the Gulf War	C											\$0
DoD-078	Experimental Models of Gulf War Syndrome	C											\$0
DoD-079	Time Course of Stress-induced Impairment of Blood Brain Barrier	C											\$0
DoD-080	Molecular Regulation of Corticosteroid Receptor Expression in Stress-Responsive Cells	C											\$0
DoD-081	Immunotoxicity due to Coexposure to DEET, Pyridostigmine, and Stress	C											\$0
DoD-082	Feasibility of Developing a Registry of PTSD Affected Veteran Sib Pairs	C											\$0
DoD-083	Risk for Stress-related Substance Abuse: the Effects of Family History of Alcoholism	C											\$0
DoD-084	Psychobiologic Alterations in Persian GW Veterans with and without PTSD	C											\$0
DoD-085	CNS Cytokines and CRH in GW Veterans with Multiple Unexplained Symptoms	C											\$0
DoD-086	Effects of Combat Stress on Structure and Function of the Hippocampus	C											\$0
DoD-087	Measurement and Validation of Psychosocial Risk and Resilience Factors Accounting for Physical and Mental Health and Health-Related	C											\$0

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	Quality of Life among PGWVs												
DoD-088	Clinical Relevance of Novel Immunological Markers in PTSD	C											\$0
DoD-089	Limbic Blood Flow and Opiate Receptor PET in Posttraumatic Stress Disorder	C											\$0
DoD-090	SPECT Benzodiazepine Receptor and MR Imaging in PTSD	C											\$0
DoD-091	Neurological and Circadian Substrates of PTSD-like Behaviors	C											\$0
DoD-092	Traumatic Experiences Persistently Enhance Cue-dependent Learning: Toward an Animal Model of Chronic Stress and Posttraumatic Stress Disorder	C											\$0
DoD-093	Troops Exposed to Nerve Agents at Aberdeen Proving Ground: Follow-Up	C											\$0
DoD-094	Combined Analysis of the VA and DoD Gulf War Clinical Registries: A Study of Clinical Findings from Systematic Medical Examinations of 100,000 U.S. GW Veterans	C											\$0
DoD-095	Development of Diagnostic tools and alternative treatment drugs for Leishmania	C											\$0
DoD-096	Deployment Health Center	C											\$0
DoD-097	Surveillance of B. pertussis among Military Trainees with Respiratory Disease: Development and Validation of a Highly Sensitive PCR and Beacon Probe based Method for Diagnosis of Pertussis	C											\$0
DoD-098	Investigation of a Baseline Medical Database to Evaluate the Health of Military Forces and Veterans	C	\$0	\$0	\$0								\$0
DoD-099	DoD-wide Medical Surveillance for Potential Long-Term Adverse Events associated with Anthrax Immunization in Active Duty Service Members, Proposal 1:	C											\$0

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Department of Defense Gulf War Research Funding

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	Hospitalizations												
DoD-100	Antibodies to Squalene	C	\$0										\$0
DoD-101	Mechanisms in Chronic Multisymptom Illnesses	C	\$0	\$0	\$0								\$0
DoD-102	Case-Control Study of Fatal Motor Vehicle Crashes Among Gulf War and Non-Deployed Veterans	C											\$0
DoD-103	Human Metabolism and Interactions of Deployment-related Chemicals	C	\$166,570	\$0	\$0								\$166,570
DoD-104	Clinical Evaluation of a Proposed New Gulf War Syndrome	C											\$0
DoD-105	Neuroplasticity and Calcium Signaling in Stressed Rat Amygdala	C											\$0
DoD-106	The Role of Th1/Th2 cytokine balance in Gulf War-related illness	C											\$0
DoD-107	Stress, Organophosphates and Blood Brain Barrier Integrity	C											\$0
DoD-108	Health Status of Current National Guard Members	C											\$0
DoD-109	Disordered Responses to Orthostatic Stress in the Pathogenesis of Gulf War Syndrome Symptoms	C											\$0
DoD-110	Predictors of Career and Family Dysfunction in Young Adults Enlisting in the United States Navy	C											\$0
DoD-111	Autonomic Dysfunction in GW Veterans	C											\$0
DoD-112	Role of Respirable Saudi Arabian Sand and Pyridostigmine in the Gulf War Syndrome: An Autoimmune Adjuvant Disease?	C											\$0
DoD-113	Interactions of Subsymptomatic Doses of Sarin with Pyridostigmine: Neurochemical, Behavioral, and Physiological Effects	C											\$0
DoD-114	A Re-examination of Neuropsychological Functioning in Persian GW Veterans	C											\$0
DoD-115	A Randomized, Multi-Center, Controlled Trial of Multi-Model	C											\$0

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	Therapy in Veterans with Gulf War Illnesses (EBT) (See also VA-62; formerly VA/DoD 1D)												
DoD-116	VA/DoD Core Funding of the Medical Follow-Up Agency (See also VA-63; formerly VA-DoD-2D/2V)	C											\$0
DoD-116 A	Follow-Up Investigation of Troops Exposed to Nerve Agents at Aberdeen Proving Ground (Pilot Study) (See also VA-63A; formerly VA/DoD-2DA)	C											\$0
DoD-116 B	Patterns of Pre-Persian Gulf War Illness and Health Care Seeking, Pilot Study (See also VA-63B; formerly VA/DoD- 2DB)	C											\$0
DoD-117	Patterns of Pre-Persian Gulf War Illness and Health Care Seeking	C											\$0
DoD-118	An Epidemiological Investigation into the Occurrence of Amyotrophic Lateral Sclerosis (ALS) Among GW Veterans (See also VA-61)	C											\$0
DoD-119	Antibiotic Treatment of GW Veterans' Illnesses (ABT) (See also VA-55)	C											\$0
DoD-120	Assessing the Potential Health Impact of the Gulf War on Saudi Arabia National Guard Members and Their Dependents	C											\$0
DoD-121	Evaluation of the Health Risks of Embedded Depleted Uranium Shrapnel During Pregnancy and Offspring Development	C											\$0
DoD-122	Carcinogenic Potential of Depleted Uranium and Tungsten Alloys	C											\$0
DoD-123	Immunotoxicity of Depleted Uranium and Heavy Metal Tungsten Alloys	C											\$0
DoD-124	Randomized, Controlled Trial for Combination Treatment with Pyridostigmine, DEET, and Permethrin	C											\$0
DoD-125	A Randomized Clinical Trial of Cognitive-Behavioral Treatment for PTSD in Women (See VA-74)	C											\$0
DoD-126	Blood-Brain Barrier Transport of Uranium	C	\$0	\$0	\$0								\$0

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DoD-127	Depleted Uranium Fragment Carcinogenicity: Extrapolation of Findings in Rodents to Man	C											\$0
DoD-128	Multifactorial Assessment of Depleted Uranium Neurotoxicity	C	\$0	\$0	\$0								\$0
DoD-129	Inhalation of Uranium Oxide Aerosol: CNS Deposition, Neurotoxicity, and Role in Gulf War Illness	C	\$0	\$0	\$0								\$0
DoD-130	Carcinogenicity and Immunotoxicity of Embedded Depleted Uranium and Heavy-Metal Tungsten Alloys in Rodents	C	\$0	\$0	\$0								\$0
DoD-131	Magnetic Resonance and Spectroscopy of the Human Brain in Gulf War Illnesses	C	\$0	\$0	\$0								\$0
DoD-132	Impaired Auditory Sensory Gating, Acoustic Startle Response: Effects of Long and Short Deployments on Army Combat Readiness	C	\$0										\$0
DoD-133	Odors, Deployment Stress, and Health: A Conditioning Analysis of Gulf War Syndrome	C	\$0										\$0
DoD-134	Identification and Development of Biological Markers of Human Exposure to the Insecticide Permethrin	C	\$0										\$0
DoD-135	Biochemical Markers for Exposure to Low Doses of Organophosphorus Exposure	C											\$0
DoD-136	A Mechanism-Based, Molecular Fingerprint Strategy for Detecting Biomarkers of Organophosphate Exposure	C											\$0
DoD-137	Low Level Exposure to Sulfur Mustard: Development of a SOP for Analysis of Albumin Adducts and of a System for Non-Invasive Diagnosis on Skin	C											\$0
DoD-138	Improving Blood Monitoring of Enzymes as Biomarkers of Risk from Anticholinergic Pesticides and Chemical Warfare Agents	C	\$0										\$0
DoD-139	Assessment of the Role of Stress-Activated Kinase in the Pathogenesis of Gulf War Illnesses	C											\$0

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DoD-140	US DOD Surveillance for Neoplasms in Infancy	C											\$0
DoD-141	Physical, Mental, Social, and Family Health Outcomes of GW Veterans	C											\$0
DoD-142	Illnesses Among Persian GW Veterans: Case Validation Studies (Iowa / Great Britain)	C											\$0
DoD-143	Millennium Cohort Study	O	\$3,251,000	\$3,160,000	\$3,145,000	\$3,306,000	\$3,347,000	\$3,676,000	\$3,535,000	\$4,073,000	\$5,390,000	\$5,442,000	\$38,325,000
DoD-144	Psychological Health Screening: Methods and Metrics for Deployed Forces	C	\$0	\$0	\$0								\$0
DoD-145	Early Intervention Research Program to Enhance Soldier Resilience	C	\$0	\$0	\$0	\$0							\$0
DoD-146	Assessment of Toxicology Assay Methods and Chemical Exposures Among a Cohort of US Marines Deployed in the Gulf War	C											\$0
DoD-147	Development and Validation of the Automated Neuropsychological Assessment Metric (ANAM) for Deployment Health Monitoring Applications	C											\$0
DoD-148	Predicting Operational Readiness for Deployed Army National Guard and Army Reserve Soldiers and Families	C											\$0
DoD-149	Longitudinal Health Study of GW Veterans	C											\$0
DoD-150	Validation Study of Gulf War Deployment Files	C											\$0
DoD-151	Mechanisms and Consequences of Vaccine Effects on Th1/Th2 Balance in GW Veterans	C											\$0
DoD-152	Characterization of Intracellular Signaling Pathways Activated by Nerve Agents	C	\$0	\$0	\$0								\$0
DoD-153	Gulf War Illness Research	C											\$0
DoD-154	Prospective Assessment of Neurocognition in Future Gulf-deployed and Gulf-nondeployed Military Personnel: A Pilot Study	C	\$0	\$0	\$0	\$0							\$0
DoD-155	Neuropsychological Functioning in GW Veterans Exposed to Pesticides and Pyridostigmine Bromide	C	\$0	\$0									\$0

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DoD-156	The Effects of Diesel Exhaust and Stress on the Acute Phase Response and Symptoms in the Chemically Intolerant	C	\$0	\$0									\$0
DoD-157	Novel Leishmania And Malaria Potassium Channels: Candidate Therapeutic Targets	C											\$0
DoD-158	Preconceptional Paternal Exposure to Embedded Depleted Uranium Fragments: Transmission Of Genetic Damage To Offspring	C											\$0
DoD-159	Neurotoxicity from Chronic Exposure to Depleted Uranium	C											\$0
DoD-160	Characterization of the Reproductive Toxicity of Depleted Uranium	C											\$0
DoD-161	Glutamate Receptor Aptamers and ALS	C	\$0	\$0									\$0
DoD-162	Evaluation of the Effects of Multiple Immunizations Administered in a Stressful Environment on Immunologic Function	C	\$0	\$0									\$0
DoD-163	Neuroimmune Effects of Inhaling Low Dose Sarin	C	\$0	\$0									\$0
DoD-164	Efficacy of Adjunct Sleep Interventions For PTSD (EASI-PTSD)	C	\$0	\$0									\$0
DoD-165	Biomarkers for Amyotrophic Lateral Sclerosis in Active Duty Military - BALSAM	C	\$0	\$0									\$0
DoD-166	A Placebo-Controlled Trial of Prazosin vs. Paroxetine in Combat Stress-Induced PTSD Nightmares and Sleep Disturbance	C	\$0	\$0									\$0
DoD-167	Mass Spectrometry to Identify New Biomarkers of Nerve Agent Exposure	C	\$0	\$0	\$0								\$0
DoD-168	Developing Biomarkers for Fibromyalgia	C	\$0	\$0	\$0								\$0
DoD-169	Development of Novel Therapy for Chronic Neuropathic Pain	C	\$0	\$0	\$0								\$0
DoD-170	Structural MRI and Cognitive Correlates in Post-Control Personnel from Gulf War I	C	\$0	\$0	\$0								\$0
DoD-171	Q10 for GW Veterans	C	\$0	\$0	\$0								\$0
DoD-172	CNDP1 Polymorphisms and	C	\$0	\$0	\$0								\$0

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PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	Carnosine Therapy in GWI												
DoD-173	A Randomized, Double-Blind, Placebo-Controlled, Crossover Trial of Mifepristone in GW Veterans with Chronic Multisymptom Illness	C	\$0	\$0	\$0								\$0
DoD-174	Autonomic Biomarkers and Treatment for Gulf War Illness	C	\$0	\$0	\$0								\$0
DoD-175	Novel Pharmacological Approaches for Treatment of Neurotoxicity Induced by Chronic Exposure to Depleted Uranium	C	\$0	\$0	\$0								\$0
DoD-176	Studies on Axonal Transport in an Animal Model for Gulf War Syndrome	C	\$0	\$0	\$0								\$0
DoD-177	Randomized Trial of an Environmental Medicine Approach to GW Veterans' Illness	C	\$0	\$0	\$0								\$0
DoD-178	Analysis of Paraoxonase Status among US Navy GW Veterans with Increased Postwar Symptoms, Psychological Morbidity and Medical Conditions	C	\$0	\$0	\$0								\$0
DoD-179	Mechanisms of Mitochondrial Defects in Gulf War Syndrome	C		\$440,674	\$0	\$0	\$0						\$440,674
DoD-180	Exercise-Induced Cerebrospinal Fluid Proteomic Biomarkers of Fatigue	C		\$921,000	\$0	\$0	\$0						\$921,000
DoD-181	Effectiveness of Acupuncture in the Treatment of Gulf War Illness	C		\$1,015,733	\$0	\$0	\$0						\$1,015,733
DoD-182	Trial of Naltrexone and Dextromethorphan for GW Veterans' Illness	C		\$1,063,641	\$0	\$0	\$0						\$1,063,641
DoD-183	Biomarkers of GW Veterans' Illnesses: Tissue Factor, Chronic Coagulopathy, and Inflammation	C		\$653,460	\$0	\$0	\$0						\$653,460
DoD-184	Treatment of Memory Impairment and Sensorimotor Deficits in an Animal Model for the GW Veterans' Illnesses	C		\$311,135	\$0	\$0	\$0						\$311,135
DoD-185	Neuroinflammatory Pathobiology in Gulf War Illness: Characterization with an Animal Model	C		\$718,326	\$0	\$0	\$0						\$718,326
DoD-186	Small Intestinal Microbial Community in Gulf War Illness	C		\$634,142	\$0	\$0	\$0						\$634,142

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Status: C=Complete; O=Ongoing

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-187	The Use of Comprehensive Molecular Profiling with Network and Control Theory to Better Understand GWI and Model Therapeutic Strategies	C		\$715,456	\$0	\$0	\$0						\$715,456
DoD-188	Epithelial Cell TRPV1-Mediated Airway Sensitivity as a Mechanism for Respiratory Symptoms Associated with Gulf War Illness	C		\$842,400	\$0	\$0	\$0						\$842,400
DoD-189	Discovery of AMPA Receptor Potentiating Aptamers as Cognitive Enhancers	C		\$303,000	\$0	\$0	\$0						\$303,000
DoD-190	Identification of Biological Pathways Implicated in Hippocampal Dysfunction and Cognitive Impairment in Gulf War Illness	C		\$894,000	\$0	\$0	\$0						\$894,000
DoD-191	Neuroimmune Interactions, Low-Dose Sarin Inhalation, and Gulf War Syndrome	C			\$1,247,995	\$0	\$0	\$0					\$1,247,995
DoD-192	Exhaled Gas Frequency Comb Spectroscopy Distinguishing Biomarkers in Gulf War Illness Syndrome	C			\$742,296	\$0	\$0	\$0					\$742,296
DoD-193	Genome Instability: A Common Link in Gulf War Illness Patients	C			\$904,364	\$0	\$0	\$0					\$904,364
DoD-194	Homeostatic and Circadian Abnormalities in Sleep and Arousal in Gulf War Syndrome	C			\$705,654	\$0	\$0	\$0					\$705,654
DoD-195	Theory-Driven Models for Correcting "Fight or Flight" Imbalance in Gulf War Illness	C			\$678,953	\$0	\$0	\$0					\$678,953
DoD-196	Probiotic (Bifidobacterium Infantis) for Gulf War Illness	C			\$466,260	\$0	\$0	\$0					\$466,260
DoD-197	Undiagnosed Small Fiber Polyneuropathy: Is It a Component of Gulf War Illness?	C			\$929,224	\$0	\$0	\$0					\$929,224
DoD-198	Oxidative Stress	C			\$927,000	\$0	\$0	\$0					\$927,000
DoD-199	Gulf War Illness: Evaluation of an Innovative Detoxification Program	C			\$633,677	\$0	\$0	\$0					\$633,677
DoD-200	XMRV and GWI: Is There an Association?	C				\$565,794	\$0	\$0	\$0	\$0			\$565,794
DoD-201	Synergistic Actions of Pyridostigmine Bromide and Insecticides on Muscle and Vascular Nociceptors	C				\$852,157	\$0	\$0	\$0				\$852,157
DoD-202	Brain-Immune Interactions as Basis	C				\$262,052	\$0	\$0	\$0				\$262,052

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Status: C=Complete; O=Ongoing

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	of Gulf War Illness: Consortium Development												
DoD-203	Redefining Gulf War Illness Using Longitudinal Health Data: The Devens Cohort	C				\$708,169	\$0	\$0	\$0	\$0			\$708,169
DoD-204	Nasal Irrigation for Chronic Rhinosinusitis and Fatigue in Patients with Gulf War Syndrome	C				\$668,072	\$0	\$0	\$0	\$0			\$668,072
DoD-205	The HPA Axis and Metabolic Outcomes in GW Veterans	C				\$699,933	\$0	\$0	\$0	\$0			\$699,933
DoD-206	Investigating Clinical Benefits of a Novel Sleep-Focused, Mind-Body Program on Gulf War Illness Symptoms: An Exploratory Randomized Controlled Trial	C				\$606,496	\$0	\$0	\$0	\$0			\$606,496
DoD-207	Gulf War Illness Research Development Consortium (GWIC)	C				\$251,475	\$0	\$0	\$0				\$251,475
DoD-208	Genome-Wide Association Study of a Validated Case Definition of Gulf War Illness in a Population-Representative Sample	C				\$140,357	\$0	\$0	\$0				\$140,357
DoD-209	Proteomic Immune Profiling for the Therapeutic Modulation of Cognitive Impairment in a Novel GWI Mouse Model	C				\$925,368	\$0	\$0	\$0	\$0			\$925,368
DoD-210	Assessment of Diverse Biological Indicators in Gulf War Illness: Are They Replicable? Are They Related?	C				\$741,013	\$0	\$0	\$0	\$0			\$741,013
DoD-211	Detection of Xenotropic Murine Leukemia Virus-Related Virus (XMRV) in Gulf War Illness: Role in Pathogenesis or Biomarker?	C				\$403,050	\$0	\$0	\$0				\$403,050
DoD-212	Integrative Physiology of Gulf War Illness: Role of Autonomic Function, Central Neural Processing, and Sleep	C				\$254,295	\$0	\$0	\$0				\$254,295
DoD-213	Effectiveness of Acupressure Treatment for Pain Management and Fatigue Relief in GW Veterans	C					\$677,280	\$0	\$0	\$0			\$677,280
DoD-214	Abnormalities in Human Brain Creatine Metabolism in Gulf War Illness Probed with MRS	C					\$878,051	\$0	\$0	\$0			\$878,051
DoD-215	Identifying Immune Drivers of Gulf War Illness Using a Novel Daily Sampling Approach	C					\$900,642	\$0	\$0	\$0			\$900,642
DoD-216	Intranasal Insulin: A Novel Treatment	C					\$1,492,571	\$0	\$0	\$0			\$1,492,571

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	for Gulf War Multisymptom Illness												
DoD-217	Efficacy of Treatments Tried: A Survey of GW Veterans	C					\$527,365	\$0	\$0	\$0			\$527,365
DoD-218	Establishing a 1991 Veterans Research Network To Improve Characterization of Gulf War Illness and Provide a National Resource for Veterans and Investigators	C					\$814,165	\$0	\$0	\$0			\$814,165
DoD-219	Organophosphate-Related Alterations in Myelin and Axonal Transport in the Living Mammalian Brain	C					\$859,673	\$0	\$0	\$0			\$859,673
DoD-220	Biomarker Discovery in GW Veterans: Development of a War Illness Diagnostic Panel	C					\$784,175	\$0	\$0	\$0			\$784,175
DoD-221	Role of microRNAs in the Pathobiology of Gulf War Illness: Identification of Potential Novel Therapeutic Targets	O						\$339,305	\$0	\$0	\$0	\$0	\$339,305
DoD-222	Brain Immune Interactions as the Basis of Gulf War Illness: Gulf War Illness Consortium (GWIC)	O						\$2,642,203	\$2,141,930	\$0	\$0	\$0	\$4,784,133
DoD-223	Persistent Neural Membrane Protein Misregulation Following Neurotoxicant Exposure	O						\$881,479	\$0	\$0	\$0	\$0	\$881,479
DoD-224	Understanding Gulf War Illness: An Integrative Modeling Approach	O						\$2,361,185	\$1,741,342	\$0	\$0	\$0	\$4,102,527
DoD-225	The Role of Protein Radicals in Chronic Neuroimmune Dysfunction and Neuropathology in Response to a Multiple-Hit Model of Gulf War Exposures	O						\$884,129	\$0	\$0	\$0	\$0	\$884,129
DoD-226	Gulf War Illness: Assessment of Bioenergetics in Brain and Muscle	O						\$930,000	\$0	\$0	\$0	\$0	\$930,000
DoD-227	Monosodium Luminol for Improving Brain Function in Gulf War Illness	O							\$872,357	\$0	\$0	\$0	\$872,357
DoD-228	A Multimodal Evaluation of the Comparative Efficacy of Yoga versus a Patient-Centered Support Group for Treating Chronic Pain in Gulf War Illness	O							\$603,663	\$0	\$0	\$0	\$603,663
DoD-229	Bench to Bedside: Understanding Symptom Response to Acupuncture Treatment and Designing a Successful Acupuncture Treatment Program	O							\$395,880	\$0	\$0	\$0	\$395,880

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-230	An In Vivo Investigation of Brain Inflammation in Gulf War Illness with Integrated PET/MR Imaging	O							\$1,026,352	\$0	\$0	\$0	\$1,026,352
DoD-231	Use of a Portable Stimulator to Treat GWI	O							\$553,095	\$0	\$0	\$0	\$553,095
DoD-232	Characterizing Treatable Causes of Small Fiber Polyneuropathy in Gulf War Veterans	O							\$1,031,355	\$0	\$0	\$0	\$1,031,355
DoD-233	Assessment of MRI-Based Markers of Dopaminergic Integrity as a Biological Indicator of Gulf War Illness	O							\$425,471	\$0	\$0	\$0	\$425,471
DoD-234	A Prospective Open-Label Clinical Trial of Methylphenidate plus a GWI-Specific Nutrient Formula in Patients with Gulf War Illness and Concentration Disturbances	O							\$580,981	\$0	\$0	\$0	\$580,981
DoD-235	Treating Gulf War Illness with Novel Anti-Inflammatories: A Screening of Botanical Microglia Modulators	O							\$652,496	\$0	\$0	\$0	\$652,496
DoD-236	Development of Dietary Polyphenol Preparations for Treating Veterans with Gulf War Illness	O							\$540,039	\$0	\$0	\$0	\$540,039
DoD-237	Direct Test for Neuroinflammation with [11C]DAP-713-PET Scanning	O							\$849,827	\$0	\$0	\$0	\$849,827
DoD-238	Restoring the Brain's Lipid Homeostasis as a Therapeutic Avenue for Treating the CNS Symptoms of Gulf War Illness	O							\$954,000	\$0	\$0	\$0	\$954,000
DoD-239	Mitochondrial and Nuclear Genetics in Gulf War Illness	O							\$930,000	\$0	\$0	\$0	\$930,000
DoD-240	Novel Therapeutic Approaches for the Treatment of Depression and Cognitive Deficits in a Rodent Model of Gulf War Veterans' Illness	O							\$884,066	\$0	\$0	\$0	\$884,066
DoD-241	Gulf War Illness Inflammation Reduction Trial	O							\$1,044,682	\$0	\$0	\$0	\$1,044,682
DoD-242	Epigenetic Mediation of Endocrine and Immune Response in an Animal Model of Gulf War Illness	O							\$774,746	\$0	\$0	\$0	\$774,746
DoD-243	Vascular and Skeletal Muscle Function in Gulf War Veterans Illness	O								\$870,642	\$0	\$0	\$870,642
DoD-244	Muscle Mitochondrial Assessments in Gulf War Illness	O								\$1,023,883	\$0	\$0	\$1,023,883
DoD-245	Gulf War Illness as a Brain Autoimmune Disorder	O								\$741,578	\$0	\$0	\$741,578

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PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-246	START and STOPP in GWI	O								\$424,901	\$0	\$0	\$424,901
DoD-247	Neurovascular and Autonomic Dysfunction Associated with Gulf War Illness Pain	O								\$665,930	\$0	\$0	\$665,930
DoD-248	D-cycloserine: A Novel Treatment for Gulf War Illness	O								\$542,092	\$0	\$0	\$542,092
DoD-249	Effect of Diet on Gulf War Illness: A Pilot Study	O								\$881,448	\$0	\$0	\$881,448
DoD-250	An Integrated Genomics and Cell Biology Approach to Correlate Novel GWI Indicators of Infections and Neuroinflammatory Mechanisms with Targeted Drug	O								\$805,882	\$0	\$0	\$805,882
DoD-251	Microtubule Abnormalities Underlying Gulf War Illness in Neurons from Human-Induced Pluripotent Cells	O								\$1,085,000	\$0	\$0	\$1,085,000
DoD-252	Preclinical Treatment of an Organophosphate Model of Gulf War Illness	O								\$1,088,499	\$0	\$0	\$1,088,499
DoD-253	Vagus Nerve Stimulation as a Treatment Strategy for Gulf War Illness	O								\$739,525	\$0	\$0	\$739,525
DoD-254	Biomarkers and Brain Mechanisms of Gulf War Illness	O								\$524,557	\$0	\$0	\$524,557
DoD-255	Designing a Successful Acupuncture Treatment Program for Gulf War Illness	O								\$734,265	\$0	\$0	\$734,265
DoD-256	Novel Autoantibody Serum and Cerebrospinal Fluid Biomarkers in Veterans with Gulf War Illness	O								\$607,717	\$0	\$0	\$607,717
DoD-257	Novel Autoantibody Serum and Cerebrospinal Fluid Biomarkers in Veterans with Gulf War Illness	O								\$288,261	\$0	\$0	\$288,261
DoD-258	High Fidelity Design of Multimodal Restorative Interventions in Gulf War Illness	O								\$810,466	\$0	\$0	\$810,466
DoD-259	High Fidelity Design of Multimodal Restorative Interventions in Gulf War Illness	O								\$353,236	\$0	\$0	\$353,236
DoD-260	Extending Benefits of Q10: Mitochondrial Cocktail for Gulf War Illness	O								\$1,085,000	\$0	\$0	\$1,085,000
DoD-261	Testing the Model: A Phase I/II	O								\$560,788	\$0	\$0	\$560,788

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	Randomized Double Blind Placebo Control Trial of Targeted Therapeutics: Liposomal Glutathione and Curcumin												
DoD-262	Testing the Model: A Phase I/II Randomized Double Blind Placebo Control Trial of Therapeutics: Liposomal Glutathione and Curcumin	O								\$512,460	\$0	\$0	\$512,460
DoD-263	Vagus Nerve Stimulation: A Noninvasive Treatment to Improve the Health of Gulf Veterans with Gulf War Illness	O								\$703,272	\$0	\$0	\$703,272
DoD-264	An Objective Blood Test from Stimulated Gene Expression for Classification and Outcome Assessment in Clinical Trials of Gulf War Illness	O								\$967,068	\$0	\$0	\$967,068
DoD-265	An Objective Blood Test from Stimulated Gene Expression for Classification and Outcome Assessment in Clinical Trials of Gulf War Illness	O								\$369,511	\$0	\$0	\$369,511
DoD-266	A Randomized, Double-Blind, Placebo-Controlled Crossover Study of the Anti-Inflammatory Compound Anatabine to Treat Pain in GWI Patients	O								\$710,843	\$0	\$0	\$710,843
DoD-267	Diagnosis of Late-Stage, Early-Onset, Small-Fiber Polyneuropathy	O								\$1,174,728	\$0	\$0	\$1,174,728
DoD-268	Diagnosis of Late-Stage, Early-Onset, Small-Fiber Polyneuropathy	O								\$189,257	\$0	\$0	\$189,257
DoD-269	The Role of Desert-Dust Metals in the Pathobiology of Gulf War Illness	O									\$540,621	\$0	\$540,621
DoD-270	Examination of Plasma PON1 Paraoxonase Activity and Genotype in Gulf War Veterans	O									\$512,227	\$0	\$512,227
DoD-271	Neuroepidemiologic Case Definition of Gulf War Illness from Neuroimaging and EEG in a Population-Representative Nested Case-Control Sample of Gulf War Veterans	O									\$1,032,549	\$0	\$1,032,549
DoD-272	Examination of Neuroimaging, Cognitive Functioning, and Plasma Biomarkers in a Longitudinal Cohort:	O									\$565,916	\$0	\$565,916

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PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	Fort Devens, Part 1												
DoD-273	Examination of Neuroimaging, Cognitive Functioning, and Plasma Markers in a Longitudinal Cohort of Gulf War Deployed Veterans: The Fort Devens Cohort, Part 2	O									\$242,164	\$0	\$242,164
DoD-274	Stress Hormone Enhancement of OP-Induced Neuroinflammation as an Animal Model of GWI: The Role of Toll-Like Receptors and Plasticity, Part 1	O									\$719,550	\$0	\$719,550
DoD-275	Stress Hormone Enhancement of OP-Induced Neuroinflammation as an Animal Model of GWI: The Role of Toll-Like Receptors and Plasticity, Part 2	O									\$163,500	\$0	\$163,500
DoD-276	Identification of Lipid Biomarkers of Inflammation and Metabolic Disturbances in GWI	O									\$720,000	\$0	\$720,000
DoD-277	Treatment of Memory Disorders in Gulf War Illness with High-Definition Transcranial Direct Cortical Stimulation	O									\$948,911	\$0	\$948,911
DoD-278	Metabolomics Distinguish Veterans with Gulf War Illness: Replicating and Expanding Promising Results	O									\$697,500	\$0	\$697,500
DoD-279	Neurodegenerative Changes after Exposure to Gulf War Insults	O									\$544,500	\$0	\$544,500
DoD-280	Curcumin Nanoparticle Therapy for Gulf War Illness	O									\$668,250	\$0	\$668,250
DoD-281	Exploring Mechanisms Underlying Impaired Brain Function in Gulf War Illness through Advanced Network Analysis	O									\$538,577	\$0	\$538,577
DoD-282	Gulf War Women's Health Cohort	O									\$1,138,877	\$0	\$1,138,877
DoD-283	Therapeutic Inhibition of microRNA-124 for the Treatment of Gulf War Illness	O									\$274,100	\$0	\$274,100
DoD-284	Alleviating Headache and Pain in GWI with Neuronavigation-Guided rTMS	O									\$773,934	\$0	\$773,934
DoD-285	Disentangling the Effects of PTSD from GWI for Improved Diagnostics and Treatments	O									\$592,825	\$0	\$592,825

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PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
DoD-286	Persistently Elevated Somatic Mutation as a Biomarker for Clinically Relevant Exposures in GWI	O									\$581,742	\$0	\$581,742
DoD-287	Improving Cognitive Function in Veterans with Gulf War Illness by Improving Cerebral Vascular Function	O									\$559,738	\$0	\$559,738
DoD-288	Pyridostigmine Bromide, the Enteric Nervous System, and Functional Gastrointestinal Disorders in Gulf War Illness	O									\$627,497	\$0	\$627,497
DoD-289	Investigating Increased Glutamate Transporter EAAT2 Function as a Potential Therapeutic Approach for Gulf War Illness	O									\$770,000	\$0	\$770,000
DoD-290	Mitochondrial Dysfunction and Gulf War Illness	O									\$717,397	\$0	\$717,397
DoD-291	Identification of Causes and Treatments for Chronic Pain in a Model of Gulf War Illness	O									\$796,400	\$0	\$796,400
DoD-292	Therapeutic Intervention of Glial-Mediated Enhancement of Neuroinflammation in an Established Model of GWI	O									\$500,000	\$0	\$500,000
DoD-293	Evaluation of Treatment Efficacy with a Potent Novel Immunomodulatory Glycan Conjugate in Gulf War Illness	O									\$749,437	\$0	\$749,437
DoD-294	Improving Diagnostics and Treatments for GWI Females by Accounting for the Effects of PTSD	O									\$655,822	\$0	\$655,822
DoD-295	GWII: Molecular Analysis of Disease Endophenotypes and Response to Acupuncture Treatment	O									\$856,881	\$0	\$856,881
DoD-296	Susceptibility of Cathepsin A to Organophosphate Pesticides and Nerve Agents	O									\$953,575	\$0	\$953,575
DoD-297	Quantitative Acute and Chronic Assessments of Gulf War Chemical Toxicity in Rats Using Neuroelectrophysiological Measurements and PBPK Models	O										\$560,000	\$560,000
DoD-298	Computer-Aided Decoding of Brain-Immune Interactions in Gulf War Illness (GWI): A Joint Embedding on	O										\$666,189	\$666,189

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Department of Defense Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	Brain Connectomic and Immunogenomic Markers												
DoD-299	Sigma-1 Receptor Agonists as a Novel Therapeutic for Brain Mitochondrial Dysfunction in Gulf War Syndrome	O										\$672,888	\$672,888
DoD-300	A Pilot RCT on the Effect of Resveratrol on Mood, Memory Deficits, Hippocampal Inflammation, and Neurogenesis in Veterans with Gulf War Illness (GWI)	O										\$845,106	\$845,106
DoD-301	Growth Hormone-Releasing Hormone (GHRH) Antagonist: Evaluation of Beneficial Effects for Gulf War Illness	O										\$418,867	\$418,867
DoD-302	Investigating Gene-Environment Interactions in Multiple Cohorts of 1990-1991 Gulf War Veterans	O										\$686,599	\$686,599
DoD-303	Direct Current Stimulation for Pain Treatment of Gulf War Illness	O										\$956,198	\$956,198
DoD-304	Human Leukocyte Antigen in Gulf War Veterans: Association with Symptoms and Inflammatory Markers	O										\$1,228,351	\$1,228,351
DoD-305	Glutamate Receptor and Kynurenine Pathway Functioning in the Pathobiology of Gulf War Illness	O										\$757,807	\$757,807
DoD-306	Mitochondrial Dysfunction and Aberrant Immune Activation in the Pathobiology of Gulf War Illness	O										\$742,411	\$742,411
DoD-307	Identification of Causes and Treatment for Chronic Depression in a Rodent Model of Gulf War Illness	O										\$310,000	\$310,000
DoD-308	Genetic Basis of Individual Differences in Susceptibility to Gulf War Illness	O										\$756,071	\$756,071
DoD-309	Gene Expression to Advance Understanding, Aid Diagnosis, and Define Treatment Targets in Gulf War Illness	O										\$902,182	\$902,182
DoD-310	Melatonin for Reversing Brain Dysfunction in Gulf War Illness	O										\$891,000	\$891,000
DoD-311	The Role of Oxidative Stress and Mitochondrial Dysfunction in Cognitive Impairments in Gulf War Illness	O										\$272,200	\$272,200
DoD-312	Identification of Epigenetic Signatures	O										\$247,571	\$247,571

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PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016	TOTALS FY 07-16
	as Biomarkers of Gulf War Illness												
DoD-313	Measurement of Biomarkers in Samples Collected in a Coenzyme Q10 Treatment Trial in Gulf War Illness and Control Subjects	O										\$690,584	\$690,584
DoD-314	Measurement of Biomarkers in Samples Collected in a Coenzyme Q10 Treatment Trial in Gulf War Illness and Control Subjects	O										\$163,427	\$163,427
DoD-315	Persistent Hormonal Changes in Veterans with Gulf War Illness	O										\$615,171	\$615,171
DoD-316	Treatment Strategies in a Mouse Model of Chronic Gulf War Illness	O										\$956,581	\$956,581
DoD-317	Genomic Approach to Find Female-Specific Mechanisms of GWI Pathobiology	O										\$666,331	\$666,331
DoD-318	Glutamate Neuroexcitotoxicity in GWI	O										\$914,879	\$914,879
DoD-319	The Use of B-Cell Depletion Therapy (BCDT) in Gulf War Illness: A Phase 1/2 Study	O										\$784,374	\$784,374
DoD-320	Role of Vestibular Hypofunction in Exacerbating Autonomic Dysfunction in Gulf War Illness	O										\$695,040	\$695,040
DoD-321	Gender and Gulf War Illness	O										\$232,086	\$232,086
DoD-322	Tau Pathology as a Contributor to Gulf War Illness and a Basis for Potential Therapy	O										\$781,439	\$781,439
DoD-323	Identifying Novel Immune and Radiographic CT Imaging Signatures of Chronic Bronchiolitis	O										\$630,000	\$630,000
DoD-324	Next-Generation Biomarkers of Gulf War Illness	O										\$807,396	\$807,396
	DoD Totals		\$3,417,570	\$11,672,967	\$10,380,423	\$10,384,231	\$10,280,922	\$11,714,301	\$19,537,282	\$22,533,809	\$23,832,490	\$24,292,748	\$148,046,743

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Status: C=Complete; O=Ongoing

Department of Health and Human Services Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
HHS-001	Health Assessment of Persian GW Veterans from Iowa	C											\$0
HHS-002	Disease Cluster in a Pennsylvania Air National Guard Unit, EPI-AID 95-18	C											\$0
HHS-003	Biomarkers of Susceptibility and Polycyclic Aromatic Hydrocarbon (PAH) Exposure in Urine and blood Cell DNA from U.S. Army Soldiers Exposed to Kuwaiti Oil Well Fires	C											\$0
HHS-004	Suspected Increase of Birth Defects and Health Problems Among Children Born to Persian GW Veterans In Mississippi	C											\$0
HHS-005	Cognitive Function and Symptom Patterns in Persian Gulf Veterans	C											\$0
HHS-006	Defining Gulf War Illness	C											\$0
HHS-007	Immunotoxicity of Dermal Permethrin and Cis-Urocanic Acid	C											\$0
HHS-008	Strategy to Identify Non-Additive Response to Chemical Mixtures	C											\$0
HHS-009	Improving Health Risk Communications to Prevent Unexplained Illnesses Related to Military Deployments	C	\$0										\$0
HHS-010	Health-e Voice: Optimized Implementation of a Stepped Clinical Risk Communications Guideline	C	\$0										\$0
HHS-011	Deployment to the Gulf War and the Subsequent Development of Cancer	C	\$0										\$0
HHS-012	Genetic Epidemiology of ALS in Veterans	C	\$441,974	\$433,467	\$0	\$0	\$0						\$875,441
	HHS Totals		\$441,974	\$433,467	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$

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Status: C=Complete; O=Ongoing

Department of Veterans Affairs Gulf War Research Funding

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-006 B	Clinical and Neuroendocrine Aspects of Fibromyalgia (Project II)	C											\$0
VA-006 C	Neurotoxicity of Environmental Pollutants and Warfare Agents (Project III)	C											\$0
VA-006 D	DNA Damage from Chemical Agents and Its Repair (Project IV)	C											\$0
VA-006 E	Clinical and Epidemiology Leishmania Research	C											\$0
VA-007	Desert Storm Reunion Survey	C											\$0
VA-008	Psychological Test Data of GW Veterans Over Time	C											\$0
VA-009	Evaluation of Cognitive Functioning in Persian GW Veterans Reporting War-related Health Problems	C											\$0
VA-010	Memory and Attention in PTSD	C											\$0
VA-011	Neuropsychological Functioning in Veterans	C											\$0
VA-012	Psychological Assessment of Operation Desert Storm Returnees	C											\$0
VA-013	Neurobehavioral Aspects of Persian Gulf Experiences: A Pilot Study	C											\$0
VA-015	Vaccine-Mediated Immunity Against Leishmaniasis	C											\$0
VA-016	Protective Immunity in Experimental Visceral Leishmaniasis	C											\$0
VA-017	Immunological Evaluation of Persian Gulf Veterans	C											\$0
VA-018	Chronic Gastrointestinal Illness in Persian Gulf Veterans	C											\$0
VA-020	Psychological Adjustment in Operation Desert Shield/Storm Veterans	C											\$0
VA-021	A Comparison of PTSD Symptomatology among Three Army Medical Units Involved in ODS	C											\$0
VA-036	Stress Symptoms and Their Causal Attribution in Desert Storm Veterans	C											\$0
VA-040	Musculoskeletal Symptoms in Gulf War Syndrome	C											\$0
VA-046	Diarrhea in Persian Gulf Veterans: An Irritable Bowel-Like Disorder	C											\$0

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-047	Retrospective Verification of Mustard Gas Exposure	C											\$0
VA-048	Cross-Sensitization as a CNS Model for Gulf War Chemical Intolerance	C											\$0
VA-049	Sensitivity to Pyridostigmine Bromide: Persistent Neural Dysfunction	C											\$0
VA-050	Neuropsychological findings in a sample of Operation Desert Storm Veterans	C											\$0
VA-051	Psychobiological Assessment of Desert Storm Veterans	C											\$0
VA-053	Spouses and Children Program	C											\$0
VA-054	Follow-up of Psychological and Neurocognitive Gulf War Outcome: Relation to Stress	C											\$0
VA-055	Antibiotic Treatment of GW Veterans' Illnesses (ABT) (See also DoD-119)	C											\$0
VA-056	Birmingham's GW Veterans' Illness Demonstration Clinic (13)	C											\$0
VA-057	Case Management and Residential Rehabilitation for Persian GW Veterans (13)	C											\$0
VA-058	Implementation and Evaluation of GW Veterans' Demonstration Project (13)	C											\$0
VA-059	Demonstration Treatment Program for GW Veterans With Unexplained Physical Symptoms (13)	C											\$0
VA-060	Identification and Management of Sleep Disorders in GW Veterans	C											\$0
VA-061	An Epidemiological Investigation into the Occurrence of Amyotrophic Lateral Sclerosis (ALS) Among GW Veterans (See also DoD-118)	C											\$0
VA-062	A Randomized, Multi-Center, Controlled Trial of Multi-Model Therapy in Veterans with Gulf War Illness (EBT) (See also DoD-115; formerly VA/DoD 1V)	C											\$0
VA-063	VA/DoD Core funding of the Medical Follow-Up Agency (See also DoD-116; formerly VA/DoD-2V/2D)	C	\$250,000										\$250,000

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-063 A	Follow-Up Investigation of troops exposed to nerve agents at Aberdeen Proving Ground (Pilot Study) (See also DoD-116A; formerly VA/DoD-2VA/2DA)	C											\$0
VA-063 B	Patterns of Pre-Persian Gulf War Illness and Health Care Seeking Pilot Study (See also DoD-116B; previously VA/DoD-2VB)	C											\$0
VA-064	Boston Environmental Hazards Research Center	C											\$0
VA-064 A	Functional Neuroimaging in Lead Exposed Adults	C											\$0
VA-064 B	Quantification and Validation of Structure-Function relationships through visuospatial test performance	C											\$0
VA-064 C	Development of a structured neurotoxicant assessment checklist (SNAC) for clinical use in Veteran populations	C											\$0
VA-065	San Antonio Environmental Hazards Research Center	C											\$0
VA-065 A	Does a variant of the human SOD2 gene increase sensitivity to hazards?	C											\$0
VA-065 B	The contribution of FEN-1 to genetic integrity subsequent to oxidative stress	C											\$0
VA-065 C	The importance of hydrogen peroxide detoxification in cellular protection	C											\$0
VA-065 D	Do defective Gpx1 and ALDH2 genes increase sensitivity to environmental hazards?	C											\$0
VA-066	Physiological Responding in Posttraumatic Stress Disorder	C											\$0
VA-067	Olfactory Functioning in GW Veterans	C											\$0
VA-068	Family Study of Fibromyalgia	C											\$0
VA-069	Cardiovascular Hyporeactivity and Fatiguing Illness in GW Veterans	C											\$0
VA-070	A Clinical Evaluation of the Health Status of Persian GW Veterans in VISN 8	C											\$0
VA-071	Central Nervous System Modulation of Visceral Pain in the Persian Gulf Syndrome	C											\$0

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-072	Roles of Paraoxonase, Butyrylcholinesterase and Stress in Unexplained Illnesses	C											\$0
VA-073	Pain Sensitivity in GW Veterans with Medically Unexplained Musculoskeletal Pain	C											\$0
VA-074	A Randomized Clinical Trial for Cognitive-Behavioral Treatment for PTSD in Women (See DoD-125)	C											\$0
VA-075	ALS and Veterans: Are Veterans at Increased Risk?	C											\$0
VA-076	Analysis of Hippocampal Volume in Aging Combat Veterans with PTSD	C											\$0
VA-077	HPA Axis Reactivity in Men and Women with Chronic PTSD	C											\$0
VA-078	Millenium Cohort Study	C											\$0
VA-080	Neurochemical and Neurobehavioral Impact of Pyridostigmine Bromide Treatment and Stress	C	\$252,602										\$252,602
VA-081	Stress, Pro-Inflammatory Cytokines and Coping Behavior	C											\$0
VA-082	Pituitary Adrenal Function in People with Fatiguing Illness	C											\$0
VA-083	Neuropsychological Assessment of a Population-Based Sample of Persian GW Veterans and Controls	C											\$0
VA-084	Neurobiology of Severe Psychological Trauma in Women	C											\$0
VA-085	Associative Learning in Veterans with and without Combat Experience	C											\$0
VA-086	A Clinical Trial of Magnetic Stimulation in Depression	C											\$0
VA-087	Improving Outcomes of Depression in Primary Care	C											\$0
VA-088	Prospective Assessment of Neurocognition in Future Gulf-deployed and Gulf-nondeployed Military Personnel: A Pilot Study	C											\$0
VA-089	National Registry of Veterans with Amyotrophic Lateral Sclerosis	C											\$0
VA-090	Differential Gene Expression in Pathologies Associated with Neuronal Hyperexcitability: Links to Gulf War Illness	C	\$449,990	\$0	\$0	\$0	\$281,000	\$70,250					\$801,240

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-090A	Neuronal Hyperexcitability and Motor Neuron Regeneration	C											\$0
VA-090B	Gene Expression and Proteomic Strategies in Severe Psychiatric Disorders	C											\$0
VA-090C	Developmental Differences in Alcohol Withdrawal Sensitivity	C											\$0
VA-090D	Seizures and Neuroplasticity: Physiology and Biochemistry	C											\$0
VA-091	The Role of Dietary Choline in Neuroprotection	C											\$0
VA-092	Acetylcholinesterase Activity In GW Veterans	C											\$0
VA-093	HPA Axis Alterations in PTSD: A Comparison of Gulf War and Vietnam Veterans	C											\$0
VA-094	The Immunology of Chronic Cutaneous Leishmaniasis	C											\$0
VA-095	The Role of Signal Regulatory Proteins in Astrocytomas	C											\$0
VA-096	Functional Imaging of Pain in Veterans with Unexplained Muscle Pain	C	\$135,127	\$95,382									\$230,509
VA-097	Improving a mM-CSF Tumor Vaccine for Established Intracranial Gliomas	C	\$134,628										\$134,628
VA-098	Post-Transcriptional Gene Regulation of VEGF in Malignant Gliomas	C											\$0
VA-099	Vaccination Against Visceral Leishmaniasis with a multi-epitope vaccine	C											\$0
VA-100	Studies of the Blood-Brain Barrier and its Manipulation	C											\$0
VA-101	Biomarkers Discovery in ALS	C	\$112,009	\$299,165	\$274,432								\$685,606
VA-102	Cholinergic and Monoaminergic Influences on Sleep	C											\$0
VA-103	Hypothalamic and Basal Forebrain Regulation of Sleep and Arousal	C											\$0
VA-104	Characterization of Pain Processing Mechanisms in the Irritable Bowel Syndrome	C											\$0
VA-105	Expression of the Major Surface Protease of Leishmania Chagasi	C											\$0
VA-106	Interoceptive Stressor Conditioning: A Model for Gulf War Illness	C											\$0

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-107	Evaluation of Stress Response Systems in GW Veterans with CMI	C	\$210,637	\$173,321	\$93,226	\$0							\$477,184
VA-108	Telemedicine Treatment for Veterans with Gulf War Illness	C	\$224,916	\$11,100									\$236,016
VA-109	Effects of Stress on Memory: Brain Circuits, Mechanisms and Therapeutics	C	\$317,503	\$321,148	\$241,520								\$880,171
VA-110	Pain Among GW Veterans: Secondary Analysis of CSP#458 Data	C											\$0
VA-111	T Cell Responses to Multiple Immunizations and Stress	C											\$0
VA-112	National VA Amyotrophic Lateral Sclerosis Research Consortium	C											\$0
VA-113	Novel Cause of Motor Neuron Disease	C	\$110,152	\$110,152	\$0								\$220,304
VA-114	Strategies in Therapeutic Development of Neurodegenerative Diseases	C											\$0
VA-115	Autonomic System Changes Cause Intestinal Symptoms in GW Veterans	C											\$0
VA-116	Quantitative Trait Genes Controlling Circadian and Sleep Behaviors	C											\$0
VA-117	Estimates of Cancer Prevalence in Gulf Veterans Using State Registries	C	\$115,772	\$66,597	\$0								\$182,369
VA-118	Post War Mortality from Neurologic Diseases in Gulf Veterans, 1991-2004	C	\$119,453										\$119,453
VA-119	Patterns of Microarray Gene Expression in Gulf War Illness	C	\$168,600										\$168,600
VA-120	Arginase NO Synthase and Cell Death in Amyotrophic Lateral Sclerosis	C											\$0
VA-121	Genes, Environment, and Oxidative Stress in Neurodegenerative Disorders	C											\$0
VA-122	Role of Mitochondrial Oxidative Stress in ALS	C											\$0
VA-123	Interactions Between Maternal Care, Stress and Pyridostigmine Bromide	C	\$178,447										\$178,447
VA-124	Early Life Determinants of Vulnerability to Pyridostigmine Bromide	C											\$0
VA-125	Effects of Gulf War Illness on Brain Structure, Function and Metabolism: MRI/MRS at 4 Tesla	C	\$743,778	\$653,747	\$560,455	\$5,135,117							\$7,093,097
VA-126	Structural Magnetic Resonance Imaging in Gulf War-Era Veterans	C	\$165,565										\$165,565

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-127	Interactions of the Leishmania sp. with Mammalian Cells	C											\$0
VA-128	MR Tracking of Stem Cells for Replacement Therapy in ALS	C											\$0
VA-129	Glucocorticoid Responsivity in GW Veterans	C	\$168,600										\$168,600
VA-130	Tissue Factor and Gulf War-Associated Chronic Coagulopathies	C	\$217,055	\$248,741	\$273,861	\$158,089	\$161,644						\$1,059,390
VA-131	Neuroendocrine Regulators and Proteomics in GW Veterans with CMI	C	\$163,579										\$163,579
VA-132	Immunologic Mechanisms and Biomarkers in Gulf War Illness	C	\$112,400	\$112,400	\$56,200	\$56,200							\$337,200
VA-133	Longitudinal Study of Gene Expression and Gene Products in Veterans with Gulf War Illness	C	\$112,400										\$112,400
VA-134	Autonomic Functions of GW Veterans with Unexplained Illnesses	C	\$0	\$0	\$25,880	\$101,863	\$72,667						\$200,410
VA-135	Motor Neuron Function of GW Veterans with Excessive Fatigue	C	\$0	\$0	\$79,242	\$103,549	\$25,712						\$208,503
VA-136	Central Mechanisms Modulating Visceral Sensitivity	C	\$81,715	\$121,055									\$202,770
VA-137	Diarrhea-Predominant Irritable Bowel Syndrome in Persian Gulf Veterans	C	\$224,294	\$217,325	\$0	\$104,982							\$546,601
VA-138	Inspiratory Flow Dynamics During Sleep in GWS and the Effect of CPAP	C	\$235,240	\$258,136	\$9,819								\$503,195
VA-139	Sleep Neurobiology and Circuitry	C											\$0
VA-140	Integrated Neuroimaging and Neuropathological Analysis of the Effects of Physical Activity on Progression and Therapy in ALS	C											\$0
VA-141	Genetic Analysis of an Invertebrate Model of Amyotrophic Lateral Sclerosis	C											\$0
VA-142	VA Gulf War Biorepository Trust	C	\$991,510	\$1,091,547	\$5,664,976	\$754,942	\$948,168	\$592,544	\$471,756				\$10,515,443
VA-143	The Role of Protein Oxidation in the Progression of ALS	C	\$112,400										\$112,400
VA-144	Testing the Role of Permethrin on the Progression of ALS	C	\$112,400										\$112,400
VA-145	Proteomic Analysis of Cellular Response to Biological Warfare Agents	C	\$224,800	\$224,800	\$112,400	\$67,752							\$629,752

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-146	Direct Delivery of Neurotoxins to the Brain by an Intranasal Route	C	\$256,159	\$245,295	\$195,214								\$696,668
VA-147	The Diagnosis and Pathogenesis of Occult Leishmaniasis	C											\$0
VA-148	Profile of GW Veterans Who Applied for Undiagnosed Illness Compensation	C	\$71,008										\$71,008
VA-149	Behavior of Neural Stem Cells in a Rat Model of GWS	C	\$129,861	\$268,901	\$273,801	\$136,900							\$809,463
VA-150	GW Veterans Illnesses' Research IDIQ Contract with UTSW	C	\$15,000,000	\$15,000,000	\$6,972,481	\$2,288,755	\$31,472						\$39,292,708
VA-151	Genetic Epidemiology of ALS Veterans (CSP #500B)	C		\$2,116,602	\$377,557	\$377,557	\$242,775						\$3,114,491
VA-152	Multiple Sclerosis in GW Veterans	C		\$122,010	\$137,791	\$120,866							\$380,667
VA-153	Bacterial Overgrowth Associated with Chronic Multi-Symptom Illness Complex	C			\$8,377	\$168,600	\$94,681	\$158,219	\$43,278	\$49,504			\$522,659
VA-154	Imaging Pain Modulation in GW Veterans with Chronic Muscle Pain (renewal of VA-096)	C			\$300,782	\$258,076	\$259,657	\$262,184					\$1,080,699
VA-155	Bacterial Host Defense Mechanisms in Polyaromatic Hydrocarbon Carcinogenesis	C	\$156,461	\$176,790	\$165,790	\$165,790	\$222,552	\$168,600	\$168,600	\$168,600			\$1,393,183
VA-156	Gulf War Era Cohort and Biorepository (CSP #585)	O				\$28,361	\$5,110	\$2,157,664	\$2,155,789	\$2,292,081	\$2,887,228	\$1,478,561	\$11,004,794
VA-157	A Clinical Demonstration of an EEG Brain-Computer Interface for ALS Patients (CSP #567)	C				\$2,368,460	\$965,519	\$26,296	\$84,236				\$3,444,511
VA-158	Testing the Feasibility of MC CBT for Veterans with IBS	C				\$17,953	\$93,153						\$111,106
VA-159	Somatic hypersensitivity in Veterans with IBS	C			\$56,200	\$112,400	\$112,400	\$56,200					\$337,200
VA-160	Lipoic Acid Therapy for Experimental Autoimmune Encephalomyelitis	C				\$224,126	\$168,600	\$168,600	\$168,600				\$729,926
VA-161	Multiple Antigenic Peptides to Alter the Course of Autoimmune Disease	C				\$332,743	\$168,600	\$168,600	\$168,600	\$84,300			\$922,843
VA-162	Transcription factors regulating sensory gene expression and pain pathways	C			\$94,416	\$168,600							\$263,016
VA-163	Immunoregulation of Myelin Specific T Lymphocytes	O			\$371,209	\$361,972	\$168,600	\$168,600	\$42,150	\$168,600	\$168,600	\$191,080	\$1,640,811
VA-164	Central Mechanisms Modulating Visceral Sensitivity (renewal of VA-136)	O			\$255,170	\$267,687	\$119,256	\$90,574	\$112,982	\$168,600	\$148,368	\$186,397	\$1,349,034

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APPENDIX C

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-165	A Pilot Study of CPAP Adherence Promotion by Peer Buddies with Sleep Apnea	C					\$94,838						\$94,838
VA-166	A Randomized Controlled Trial of a Mindfulness-Based Intervention for Gulf War Syndrome	C					\$106,898	\$112,394					\$219,292
VA-167	Neuroprotection and Myelin Repair Mechanisms in Multiple Sclerosis	C					\$267,287	\$259,707	\$259,707	\$259,707	\$50,165		\$1,096,573
VA-168	Sleep Neurobiology and Circuitry	O					\$244,063	\$303,406	\$168,600	\$168,600	\$202,320	\$168,600	\$1,255,589
VA-169	Prevention of Hippocampal Neurodegeneration Due to Age and Apnea	O					\$202,742	\$270,322	\$270,322	\$270,322	\$143,872	\$41,942	\$1,199,522
VA-170	Epigenetic Mechanisms Relevant to the Pathogenesis of ALS	C					\$182,650	\$168,600	\$168,600	\$168,600	\$42,150		\$730,600
VA-171	Nanoparticle Coupled Antioxidants for Respiratory Illness in Veterans	C					\$140,500	\$168,600	\$168,600	\$168,600	\$84,300		\$730,600
VA-172	Understanding Pain of Gastrointestinal Origin in Women that Serve in OEF/OIF	O					\$84,300	\$168,600	\$168,600	\$123,640	\$129,260	\$168,600	\$843,000
VA-173	Impact of Exercise Training on Pain and Brain Function in GW Veterans	O					\$104,167	\$202,910	\$386,948	\$371,321	\$329,743	\$345,506	\$1,740,595
VA-174	GW Veterans' Illnesses Biorepository	O						\$237,878	\$263,848	\$197,250	\$275,762	\$227,940	\$1,202,678
VA-175	Memory and Mood Enhancing Therapies for Gulf War Illness	O						\$266,950	\$281,000	\$281,000	\$281,000	\$70,250	\$1,180,200
VA-176	MEG Synchronous Neural Interactions (SNI) in GW Veterans	C						\$406,888	\$397,334	\$397,334			\$1,201,556
VA-177	Somatic Hypersensitivity in Veterans with IBS (renewal of VA-159)	O						\$68,970	\$197,998	\$159,121	\$30,256	\$132,146	\$588,491
VA-178	rTMS for the Treatment of Chronic Pain in GW1 Veterans	C							\$309,100	\$309,100	\$309,100		\$927,300
VA-179	Vascular and Skeletal Muscle Function in Gulf War Veterans Illness	O							\$111,330	\$168,257	\$168,148	\$118,100	\$565,835
VA-180	Diagnostic Utility of mtDNA Content and Exercise Challenge in Veterans with GWI	C							\$92,453	\$174,769	\$47,269		\$314,491
VA-181	Transcranial, Light-Emitting Diode (LED) Therapy to Improve Cognition in GWVI	O							\$427,447	\$774,029	\$785,867	\$749,455	\$2,736,798
VA-182	Consensus Case Definition for Chronic Multisymptom Illness in 1990-1991 Gulf War Veterans	C							\$850,000				\$850,000
VA-183	Examination of Cognitive Fatigue in Gulf War Illness Using fMRI	O								\$279,149	\$263,866	\$272,851	\$815,866

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Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-184	Longitudinal Assessment of Gulf War Veterans with Suspected Sarin Exposure	O								\$268,201	\$455,994	\$464,048	\$1,188,243
VA-185	Identification of Plasma Biomarkers of Gulf War Illness Using "omic" Technology	O								\$511,947	\$569,235	\$512,943	\$1,594,125
VA-186	Gulf War Exposures and the Molecular Mechanisms of Paternal Reproductive Risk	O								\$300,433	\$373,865	\$364,959	\$1,039,257
VA-187	Multimodal Biological Assessment of Gulf War Illness	O								\$477,509	\$561,936	\$561,992	\$1,601,437
VA-188	Complementary Neurosteroid Intervention in Gulf War Veterans' Illnesses	O								\$230,005	\$421,204	\$446,552	\$1,097,761
VA-189	CAM in Veterans with Gulf War Illnesses	O								\$140,533	\$222,332	\$508,824	\$871,689
VA-190	Cognitive Rehabilitation for Gulf War Illness	O								\$142,910	\$392,929	\$636,185	\$1,172,024
VA-191	Novel neurotrophic therapies in an optimized mouse model of GWVI	O								\$195,947	\$602,157	\$724,103	\$1,522,207
VA-192	Women vs. Men with GWI: Differences in Computational Models and Therapeutic Targets	O								\$189,365	\$534,460	\$541,094	\$1,264,919
VA-193	Neuroinflammation, Oxidative Stress, and Hippocampal Defects in Gulf War Illness	O								\$70,250	\$168,600	\$168,600	\$407,450
VA-194	National Health Survey of Veterans and Family Members: Secondary Analysis of CSP #458 Data	O									\$173,622	\$225,884	\$399,506
VA-195	RCT of Duloxetine and Pregabalin for the Treatment of Gulf War Illness in Veterans	O									\$384,754	\$299,247	\$684,001
VA-196	Immune Basis for Hippocampal Cholinergic Deficits in Pyridostigmine-Treated Rats	O									\$136,069	\$319,477	\$455,546
VA-197	Genomics of Gulf War Illness in Veterans	O									\$288,367	\$652,897	\$941,264
VA-198	Healthcare utilization patterns and associated costs for Gulf War I Era Veterans	O										\$190,751	\$190,751
VA-199	Post exertion malaise in GWI - Brain autonomic and behavioral interactions	O										\$477,700	\$477,700

*Totals for FY '07 - '16 do not include funds obligated in FY 1992 -2006

Status: C=Complete; O=Ongoing

Department of Veterans Affairs Gulf War Research Funding

PROJECT NO	PROJECT TITLE	STATUS	FY 2007	FY2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTALS FY 07-16
VA-200	A Translational Medicine Approach to Gulf War Illness: From Cells to Therapy	O										\$486,219	\$486,219
VA-201	WRIISC as a Model of Care for Chronic Multisymptom Illness	O										\$164,584	\$164,584
VA-202	Gulf War neurotoxins and acquired cognitive and neuropsychological dysfunction	O										\$168,600	\$168,600
VA-203	Novel Interventions for Gulf War Veterans' Illnesses	O										\$188,400	\$188,400
VA-204	Pilot Test of Telephone-Delivered Cognitive Behavioral Therapy for Insomnia for Veterans with Gulf War Illness	O										\$80,699	\$80,699
VA-205	A Randomized, Double-blind Placebo-controlled Phase III Trial of Coenzyme Q10 in Gulf War Illness	O										\$5,828	\$5,828
	VA Totals		\$22,059,061	\$21,934,214	\$16,600,799	\$13,881,340	\$5,569,011	\$6,723,556	\$7,937,878	\$9,729,584	\$11,632,798	\$12,341,014	\$128,409,255

*Totals for FY '07 - '16 do not include funds obligated in FY 1992 -2006

Status: C=Complete; O=Ongoing