

VA



U.S. Department
of Veterans Affairs

Gulf War Research Program and 2017 RAC recommendations

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Office of Research and Development

Department of Veterans Affairs

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Research Advisory Committee on Gulf War Veterans' Illnesses

Objectives:

- A. Gulf War Research Program - Review**
- B. 2017 RAC Recommendations - Update**



VA Office of Research and Development

MISSION:

To discover knowledge and create innovations that advance health care for our Veterans and our Nation

VISION:

To be the premier research organization leading our Nation's efforts to enhance the health and well-being of Veterans by developing evidence-based clinical care and delivery systems improvements



VA Office of Research and Development-Program Organization

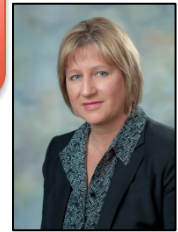


Rachel B. Ramoni,
D.M.D., Sc.D.

Office of Research & Development

Post-Deployment Health

Gulf War



Karen Block, Ph.D.



Biomedical Laboratory R&D

Clinical Laboratory R&D

Cooperative Studies Program

Health Services R&D

Rehabilitation Services R&D



Christopher T. Bever, M.D.



Theresa Gleason, Ph.D.



Grant D. Huang, M.P.H., Ph.D.



David Atkins, M.D.



Patricia Dorn, Ph.D.



Chief Research and Development Officer (CRADO) Priorities



Rachel B. Ramoni, D.M.D., Sc.D.

- **Increase Veterans' access to clinical trials**
 - **VA Data as a National Resource**
- **Increase the real-world impact of VA research**



VA Office of Research and Development

- **VA Research is an Intramural Program.**
- **Principle Investigators must have a 5/8th VA appointment.**
- **Investigators must conduct research in VA space (or request a partial-off site waiver).**
- **Investigator workforce is ~1:1 clinician- and non-clinician scientist.**
- **Merit, pilot, and Career Development awards are investigator initiated projects.**



VA-ORD Funding - Gulf War Research (2008-2018)

FY	Proposals Received	Projects Funded	Avg:19.5% % Funded	Funds Approved
2011	26	3	11.50%	\$04.0M
2012	32	7	21.80%	\$11.4M
2013	35	7	20.00%	\$12.6M
2014	40	5	12.50%	\$ 07.5M
2015	33	8	24.20%	\$13.2M
2016	26	4	15.30%	\$02.5M
2017	16	5	31.20%	\$05.3M
2018	12			

Margin Meeting July 11, 2018



Active Gulf War Research Projects, 2018 (1 of 3)

Treatments/Clinical Trials (8)

- Transcranial, Light-Emitting Diode (LED) Therapy to Improve Cognition in GWVI
- Complementary Neurosteroid Intervention in Gulf War Veterans' Illnesses
- Cognitive Rehabilitation Therapy for Gulf War Veterans
- Complementary and Alternative Medicine in Veterans with Gulf War Illnesses
- RCT of Duloxetine and Pregabalin for the treatment of GWI in Veterans
- Novel Interventions for Gulf War Veterans' Illnesses
- Pilot Test of Telephone-Delivered Cognitive Behavioral Therapy for Insomnia for Veterans with Gulf War Illness
- Randomized, Double-blind Placebo-controlled Phase III Trial of Coenzyme Q10 in Gulf War Illness



Active Gulf War Research Projects, 2018 (2 of 3)

Biomarkers/Mechanisms (10)

- Examination of Cognitive Fatigue in Gulf War Illness Using fMRI
- Longitudinal assessment of Gulf War veterans with suspected Sarin exposure
- Multimodal Biological Assessment of Gulf War Illness
- Women vs. Men with GWI: Differences in Computational Models and Therapeutic Targets
- A Translational Medicine Approach to Gulf War Illness: From Cells to Therapy
- Mechanisms of Gulf War Illness
- Biomarker Candidates in Gulf War Veterans: A 10-year Follow-up Investigation
- Identification of Plasma Biomarkers of Gulf War Illness Using "omic" Technology
- The Role of Interleukin-17 cytokines in GWVI patients with IBS
- Treating GWI immune and metabolic disturbances by targeting lipid metabolism
- Post Exertional Malaise in GWI: Brain Autonomic and Behavioral Interactions



Active Gulf War Research Projects, 2018 (3 of 3)

Model Systems (8)

- Gulf War Exposures and the Molecular Mechanisms of Paternal Reproductive Risk
- Novel neurotrophic therapies in an optimized mouse model of GWVI
- Immune Basis for Hippocampal Cholinergic Deficits in Pyridostigmine-treated Rats
- Gulf War neurotoxicants and acquired cognitive and neuropsychological dysfunction
- Maintenance of Telomerase Activity as a Treatment for Gulf War Illness
- Neuroinflammation and abnormal behavior following combined chemical exposures and bacterial infection
- Acute exercise tolerance among Veterans with Gulf War Illness (CDA)
- Examining the gut microbiota in Veterans with Gulf War Illness



Gulf War Research Biorepositories

- **Gulf War Veterans' Illnesses Biorepository**
 - Enrolling Veterans to obtain medical records
 - Brain and spinal cord tissue to be collected post-mortem
 - http://www.research.va.gov/programs/tissue_banking/gwvib/default.cfm
- **CSP #585 Gulf War Era Cohort and Biorepository**
 - Deployed and non-deployed Veterans (1276 participants)
 - Users of VA health care and non-users
 - Surveys and blood collection
 - Genomic data
 - <http://www.research.va.gov/programs/csp/585/default.cfm>



VA-ORD Funding - Gulf War Research (2008-2018)

Fiscal Year	VA Merit Review	Contract	FY Total
2008	\$ 6.93M	\$ 15.00M	\$ 21.93M
2009	\$ 9.63M	\$ 6.97M	\$ 16.60M
2010	\$ 11.57M	\$ 2.29M	\$ 13.86M
2011	\$ 5.54M	\$ 0.03M	\$ 5.57M
2012	\$ 6.72M		\$ 6.72M
2013	\$ 7.94M		\$ 7.94M
2014	\$ 9.73M		\$ 9.73M
2015	\$ 11.63M		\$ 11.63M
2016	\$ 12.34M		\$ 12.34M
2017	\$ 13.56M		\$ 13.56M
2018	\$ 11.30M		\$ 11.30M
Total (2008-2018)	\$ 106.90M	\$ 24.29M	\$ 131.20



Funding

DOD (CDMRP) Gulf War

Investigator Initiated

Discovery:	\$250k/yr	2years	\$500k total cap
Applied:	\$233k/yr	3years	\$700k total cap
Clinical Trials:	\$275k/yr	3years	\$825k total cap

Investigator Initiated

VA (ORD)

VA BLRD	\$150k/yr	4years	\$600k total cap
VA CSRD	\$150k/yr	4years	\$600k- total cap (non clinical trial)
VA CSRD	\$300k/yr	3-5years	\$900k-1.5M- total cap (multi-site clinical trial)
VA HSRD	\$350k/yr	4years	\$1.1M total cap
VA GW	\$500k/yr (+PhD salary PI)	2-4years	\$NO cap (\$2-3M)



RACGWVI 2017 Recommendations

2017 RAC Recommendations



RACGWVI 2017 Recommendations - Update

- 1. Partner with the National Institutes of Health to conduct a deep phenotyping study of Gulf War Illness and Chronic Fatigue Syndrome.**
- 2. Commit to piloting and establishing a coordinated system of centers and expertise focused on complex chronic conditions of post-deployment, and operationalize the beginning stages of such a system by 2019.**

ASECVA has signed off on the RAC Recommendations



RACGWVI 2017 Recommendations - Update

- 1. Partner with the National Institutes of Health to conduct a deep phenotyping study of Gulf War Illness and Chronic Fatigue Syndrome**



RACGWVI 2017 Recommendations - Update

Project IN-DEPTH

VA - NIH

INVESTIGATIVE DEEP PHENOTYPING STUDY
OF GULF WAR VETERAN HEALTH





RACGWVI 2017 Recommendations - Update

Response: *Concur*

- **VA:NIH partnered to conduct a deep phenotyping study of Gulf War Veterans as a supplement to an NIH-intramural study of Chronic Fatigue Syndrome.**
- **VA will use the War Related Illness and Injury Study Center (WRIISC) sites and other VA medical centers (VAMCs) to recruit and screen Veteran participants, and the clinical testing will be conducted at NIH.**
- **The VA study team are working with VAs Cooperative Studies Program and regulatory experts to ensure the proper Central IRB protocol, Inter-Agency agreements, MOUs, and data and bio-specimen sharing/management plans are in place.**
- **The VA leadership team is preparing to submit the study protocol for scientific review.**
- **The study is expected to generate hypotheses for future research and the development of more targeted clinical practices.**
- **The collected data will be shared as widely as possible outside VA and NIH.**



PROJECT IN-DEPTH: PLANNING COMMITTEE

VA ADVISORS

Vicky Davey, PhD, MPH

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SUBJECT MATTER EXPERTS

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David Winnett, USMC
(Ret)

UNDIAGNOSED DISEASE

NETWORK

David Adams,

Cynthia Tifft, MD



RACGWVI 2017 Recommendations - Update

NIH:NINDS Field Trip: Site Visit May 2018





RACGWVI 2017 Recommendations - Update

2. Commit to piloting and establishing a coordinated system of centers and expertise focused on complex chronic conditions of post-deployment, and operationalize the beginning stages of such a system by 2019.



Project: Hub-and-Spoke Model

Response: *Concur-in-Principle*

- The recommendation suggests three levels of referral for chronic post-deployment conditions – local (at VAMCs), regional (VISN-level), and national (WRIISC-like).
- Piloting a project like this will have to be coordinated with VA’s modernization plan. In the short-term, the pilot program could include a needs assessment, identification of potential sites and “local champions,” and engaging Veterans.
- In the long-term, cost estimates would be necessary, as would integrating such a program with other Veterans Health Administration priorities.



VA-ORD Gulf War Research Strategic Plan

Questions?