



# NEWS RELEASE

OFFICE OF ASSISTANT SECRETARY OF DEFENSE  
(PUBLIC AFFAIRS)

WASHINGTON, D.C. - 20301

**PLEASE NOTE DATE**

No. 607-97

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**IMMEDIATE RELEASE**

November 10, 1997

## **\$12 MILLION AWARDED FOR GULF WAR HEALTH RESEARCH STUDIES**

As part of the Clinton Administration's commitment to better understand the illnesses reported by Gulf War veterans, the Department of Defense (DoD), in coordination with the Departments of Veterans Affairs and Health and Human Services, announced today the award of \$12 million for 12 new research projects on Gulf War Illnesses. This expands DoD's current extramural research portfolio to more than 35 active projects.

The new projects include eight research efforts funded under a special Fiscal Year 1997 \$10 million Congressional appropriation to the Department of Defense for scientific research to be carried out by entities independent of the federal government. The additional four research projects were solicited from both federal and nonfederal sources and were funded from the Department's science and technology account. The funded projects were selected on the basis of scientific merit and relevance to better understand illnesses of Gulf War veterans. The final selection of funded projects was closely coordinated with the Departments of Veteran Affairs, and Health and Human Services through the Research Working Group of the Persian Gulf Veterans Coordinating Board.

The U.S. Army Medical Research and Materiel Command issued a Broad Agency Announcement to medical researchers last December and January to submit proposals for research projects on three specific topics:

- To determine the feasibility of epidemiological studies in human subjects, including those thought to be near Khamisiyah, Iraq during the first two weeks of March, 1991;
- To conduct animal studies, designed to assess the possible long-term or delayed clinical effects of low level or subclinical exposures to chemical warfare agents; and
- To investigate causal relationships between illnesses and symptoms among Gulf War veterans and possible exposures to hazardous material; chemical warfare agents; stress; potentially hazardous combinations of inoculations (i.e., anthrax and botulinum toxin) and investigational new drugs (i.e., pyridostigmine bromide) during military service in the Gulf War.

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The U.S. Army Medical Research and Materiel Command made the awards on behalf of the Departments of Defense, Veterans Affairs, and Health and Human Services.

There were no proposals submitted for epidemiologic feasibility studies among Gulf War veterans thought to be near Khamisiyah, Iraq during the first two weeks of March, 1991. However, the Department is working with the Institute of Medicine to better understand any possible health outcomes among these veterans.

Note: A list of the Fiscal Year 1997 Gulf War Illnesses Research Awards follows.

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**FY 1997 Gulf War Illness Research Awards**

<b>No.</b>	<b>Grantee</b>	<b>City</b>	<b>State</b>	<b>Principal Investigator</b>	<b>Project Title and Summary</b>	<b>Grant Value</b>	<b>Continues Through</b>
1.	Lovelace Respiratory Research Institute	Albuquerque	N.M.	Rogene F. Henderson, Ph.D.	<p>Long-Term Effects of Subclinical Exposures to Sarin  <b>Summary:</b> This study will examine nervous system effects of low level sarin delivered by inhalation to rats to investigate the possibility of long-term effects from short-term subclinical exposures to sarin by Gulf veterans.</p>	\$1M	2/29/00
2.	Battelle Medical Research and Evaluation Facility	Columbus	Ohio	Carl T. Olson, Ph.D.	<p>Assessment of Subchronic Neurobehavioral and Neuropathologic Effects in Rats Following Low-Level Sarin Exposures  <b>Summary:</b> This study will assess brain and behavior effects of low-level sarin exposure in rats treated with or without combinations of insect repellent and pesticide. This may help to explain symptoms in Gulf War veterans caused by a specific combination of chemical exposures.</p>	\$414K	10/30/99

3.	Battelle Medical Research and Evaluation Facility	Columbus	Ohio	Carl T. Olson, Ph.D.	<p>Neurophysiologic and Neuropathologic Effects in Monkeys of Low Level Exposures to Sarin, Pyridostigmine, Pesticides and Botulinum Toxoid <b>Summary:</b> This study will assess brain and behavior effects of low-level sarin exposure in monkeys with the addition of vaccination against botulinum toxin. This explores key interactions which have been raised as potential causes of undiagnosed illness in Gulf War veterans.</p>	\$1.5M	08/30/00
4.	TNO Prins Maurits Laboratory	Netherlands		Herman Van Helden, Ph.D.	<p>Low-level Exposure to GB Vapor in Air: Diagnosis /Dosimetry, Lowest Observable Effect Levels, Performance-Incapacitation, and Possible Delayed Effects <b>Summary:</b> This study will assess effects of sarin and possible interactions with pyridostigmine bromide in guinea pigs and marmosets, using doses of sarin which do not produce visible signs of exposure.</p>	\$630K	10/29/00

5.	University of California	Davis	Calif.	Barry Wilson, Ph.D.	<p>Low-Level Sarin Neurotoxicity and Its Modulation by Pyridostigmine  <b>Summary:</b>  This study will study interactions of low-level sarin and pyridostigmine bromide in hen and mouse models to determine if pyridostigmine bromide provides any protective effect on the nervous system</p>	\$785K	02/28/01
6.	Georgetown University	Washington	D.C.	Daniel Clauw, M.D.	<p>Physiologic Effects of Stress in Gulf War Veterans  <b>Summary:</b>  This project will test the hypothesis that autonomic and neuroendocrine functioning in veterans suffering from undefined illnesses is similar to that of patients with fibromyalgia and chronic fatigue syndrome. Categorizing the physiological stress responses of Gulf War veterans will help to define Gulf War Illness.</p>	\$908K	10/29/00

7.	The University of Iowa	Iowa City	Iowa	Bradley N. Doebbeling, M.D.	<p><b>Illness Among Gulf War Veterans: Case Validation Studies Summary:</b> This builds on a previous study of reporting of symptoms and illnesses in Gulf War veterans. This study will assess the prevalence of depression and cognitive dysfunction in Gulf War veterans. This helps to establish the magnitude of health problems in veterans.</p>	\$2.2M	10/24/01
8.	Purdue University	West Lafayette	Ind.	Gary E. Isom, Ph.D.	<p><b>Pyridostigmine-induced Neurodegeneration: Role of Neuronal Apoptosis Summary:</b> This project will investigate the circumstances in which pyridostigmine bromide could have toxic effects and produce neurodegeneration in rodent models. This may help to explain some of the symptoms of memory loss and other neurological impairments reported by Gulf War veterans.</p>	\$617K	10/24/00

9.	University of Nebraska	Omaha	Neb.	Oksana Lockridge, Ph.D.	<p>Butyrylcholinesterase Genetic Variants in Persons with Gulf War Illness <b>Summary:</b> This study will determine if genetic variation in susceptibility to anticholinesterase agents can help to explain some of the undiagnosed illness in Gulf War veterans.</p>	\$125K	10/22/00
10.	Southern Illinois University	Springfield	Ill.	Satu M. Somani, Ph.D.	<p>Sarin and Pyridostigmine Interaction under Physical Stress: Neurotoxic Effects in Mice <b>Summary:</b> This study will determine if physical stress amplifies effects of pyridostigmine bromide and low-dose sarin on muscle or nerve damage in mice. This will help to determine a possible role of physical stress on toxic responses in Gulf veterans.</p>	\$200K	02/28/00

11.	Oregon Health Sciences University	Portland	Ore.	Peter S. Spencer, Ph.D.	PGW Veterans: Epidemiological and Clinical Evidence for Residual Organophosphate Neurotoxicity Summary: This project will evaluate long-term signs of neurotoxicity in Gulf veterans in an attempt to determine if there is evidence for neurotoxicity associated with Gulf War exposure.	\$1.6M	10/24/00
12.	Midwest Research Institute	Kansas City	Mo.	Mary R. Cook, Ph.D.	Individual Differences in Neurobehavioral Effects of Pyridostigmine Summary: This project will assess the individual variability to brain effects of pyridostigmine bromide in normal and dry heat conditions. This may help to explain why the incidence of side effects attributed to pyridostigmine bromide were higher during the Gulf War than expected from peacetime studies.	\$1.9M	02/29/01

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