Research Advisory Committee on Gulf War Veterans' Illnesses

Committee Meeting Minutes November 18, 2020

U.S. Department of Veterans Affairs
Washington, DC

Virtual meeting was held due to COVID-19 concerns

Research Advisory Committee on Gulf War Veterans' Illnesses Committee Meeting Minutes

I hereby certify the following minutes as being an accurate record of what transpired at the November 18, 2020, meeting of the Research Advisory Committee on Gulf War Veterans' Illnesses.

Lawrence Steinman, M.D.

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Chair, Research Advisory Committee on Gulf War Veterans' Illnesses

Attendance Record

Members of the Committee present

Dr. Lawrence Steinman, Chair

Dr. James Baraniuk

COL. Richard Gaard, USA, Ret.

Dr. Drew Helmer

Dr. Carey Pope

Ms. Barbara Ward

Ms. Jane Wasvick

Mr. William Watts

Dr. James Woody, USN, Ret.

Members of the Committee absent

Mr. Brent Casey

Designated Federal Officer

Dr. Karen Block

Committee Staff

Mr. Stanley Corpus

Ms. Marsha Turner

RAC-GWVI Subcommittee Members

Dr. Lawrence Steinman, Chair

Dr. Karen Block, DFO

Dr. Drew Helmer

Mr. William Watts

The Honorable Robert L Wilkie
Message from the VA Secretary (pre-recorded video)

Invited Speakers

Jeff Moragne, Director, Advisory Committee Management Office

Data on Participant Logins

69 VA National Teleconferencing System

33 Adobe Connect

9 Committee Member logins

Meeting of the Research Advisory Committee on Gulf War Veterans' Illnesses (RAC-GWVI) Department of Veterans Affairs

CALL-IN: (800) 767-1750; access code 56978#

WATCH ONLINE: http://va-eerc-ees.adobeconnect.com/racgwvi-nov2020/

AGENDA

Wednesday, November 18, 2020 8:00am PT / 9:00am MT / 10:00am CT / 11:00am ET

11:00-11:05	Opening Remarks and Welcome	Karen Block, PhD Designated Federal Officer
		Lawrence Steinman, MD, Chair Res Adv Cmte on GW Veterans' Illnesses
11:05–11:10 Message from the VA Secretary (video) T		The Honorable Robert L. Wilkie
Director, A		Jeff Moragne Director, Advisory Committee Management Office
11:30-11:35	VA Gulf War Research Program Update: Overview of the VA-DoD Gulf War Illness State of the Science Conference	Karen Block, PhD Director, Gulf War Research VA Office of Research and Development
11:35-1:20	Strategic Planning: GWI State of the Science Review	Lawrence Steinman, MD, Chair and RACGWVI Committee
	11:35-11:45 Consortia 11:45-11:50 Biorepositories 11:50-12:15 Treatments 12:15-12:30 Epidemiology 12:30-12:50 Definition and Diagnostic E 12:50-1:20 Pathobiology	Biomarkers
1:20-1:30	Closing Comments	Lawrence Steinman, MD, Chair
1:30-2:00	Public Comment	
2:00	Adjourn	

Meeting of the Research Advisory Committee on Gulf War Veterans' Illnesses (RAC-GWVI) Department of Veterans Affairs

11:35–1:20 Strategic Planning: GWI State of the the Science Review

Lawrence Steinman, MD, Chair and RACGWVI Committee Teams

- James Baraniuk, MD
- Brent Casey, Gulf War Veteran
- Richard Gaard, Gulf War Veteran
- Drew Helmer, MD
- Carey Pope, PhD
- Barbara Ward, PhD
- Jane Wasvick, RN
- Bill Watts, Gulf War Veteran
- James Woody, MD

CONSORTIA

11:35 – 11:38 Helmer / Gaard

Cournoyer, Jeff, ATC, Comparison of Exercise Performance in Men with Gulf War Illness & Myalgic Encephalomyelitis. https://tinyurl.com/Courneyer

11:38 – 11:41 Watts / Steinman

Klimas, Nancy, MD, An Integrative Modeling Approach to GWI https://tinyurl.com/ModelingApproach

11:41 – 11:44 Ward / Steinman

Balbin, Elizabeth, MSc, Gulf War Illness: Web-Based Clinical Research and Registry Study https://tinyurl.com/RegistryStudy

11:44 – 11:47 Watts / Woody

Klimas, Nancy, MD / Cheema, Amanpreet, PhD, GWI Clinical Trials and Interventions Consortium (GWICTIC): improving outcomes with patient-centric research https://tinyurl.com/GWICTIC

BIOREPOSITORIES

11:47 – 11:50 Casey / Woody

Provenzale, Dawn, MD, MS / Sims, Kellie, PhD, The Gulf War Era Cohort and Biorepository: A Research Resource of Gulf War Era Veterans https://tinyurl.com/Provenzale

TREATMENTS

11:50 – 11:53 **Helmer / Wasvick**

McAndrew, Lisa M., PhD. Results of a Clinical Trial of Problem-Solving Treatment for Gulf War Illness https://tinyurl.com/ProblemSolvingTreatment

11:53 – 11:56 Wasvick / Casey

Nugent, Shannon, PhD, Listening to Gulf War Veterans: A Qualitative Inquiry into the Health Experience and Treatment of those with GWI https://tinyurl.com/ListeningtoVeterans

11:56 – 11:59 Watts / Woody

Chao, Linda, PhD. A Randomized Controlled Trial of CBT for Insomnia in Veterans with GWI https://tinyurl.com/ChaoCBT

11:59 – 12:02 Casey / Woody

Holton, Kathleen, PhD, MPH, The Low-Glutamate Diet Significantly Improves Pain and Other Symptoms after One Month in Veterans with GWI https://tinyurl.com/HoltonDiet

12:02 – 12:05 Helmer / Gaard

Natelson, Benjamin, MD, Noninvasive Vagus Nerve Stimulation (nVNS) as a Possible Treatment for Chronic Widespread Pain in Gulf Veterans with Gulf War Illness https://tinyurl.com/Natelson

12:05 – 12:08 Casey / Woody

Leung, Albert, MD, Alleviating Gulf War Illness Symptoms with Repetitive Transcranial Magnetic Stimulation (TMS) / Motor cortical excitability impairment in Veterans with Gulf War Illness Related Headache and Body Pain https://tinyurl.com/LeungTMS

12:08 – 12: 11 **Pope / Watts**

Bach, Ronald, PhD, Efficacy of Low-Dose Prednisone Chronotherapy in the Treatment of Gulf War illness https://tinyurl.com/BachPrednisone

12:11 – 12:14 **Steinman / Pope**

Attaluri, Sahith, PhD (PI: Ashkok Shetty, PhD), Low-Dose Curcumin Nanoparticle Therapy Improves Brain Function in a Model of Chronic Gulf War Illness https://tinyurl.com/Attaluri

EPIDEMIOLOGY

12:14-12:17 **Pope / Wasvick**

Schneiderman, Aaron, PhD, MPH, RN, Mortality of 1990-1991 Gulf War and Gulf War Era Veterans: Twenty-Five Years after the War https://tinyurl.com/25YearsAfter

12:17 – 12:20 Wasvick / Pope

Krengel, Maxine, PhD, Longitudinal Change of Health Symptoms in Relation to Neurotoxicant Exposures in 1991 Gulf War Veterans: The Ft. Devens Cohort https://tinyurl.com/FtDevons

12:20 – 12:23 Ward / Casey

Pugh, Mary Jo, PhD (PI: Nathan Kimbrel, PhD), Comorbidity Phenotypes in Gulf War Era Veterans https://tinyurl.com/ComorbidityPhenotypes

12:23 – 12:26 Wasvick / Pope

Coughlin, Stephen, PhD, Gulf War illness and Deployment-Related Exposures among Women Gulf War veterans https://tinyurl.com/CoughlinWomenGulfWar

12:26 – 12:29 Watts / Woody

Kaimal, Girija, EdD, MA, ATR-BC, Grappling with Gulf War Illness: Perspectives of Health Care Providers and Veterans https://tinyurl.com/Kaimal

DEFINITION/ DIAGNOSTIC BIOMARKERS

12:29 – 12:32 Ward / Wasvick / Casey

Dursa, Erin, PhD, MPH, Challenges in Defining Gulf War Illness: A Data Driven Approach by the Dept of Veterans Affairs https://tinyurl.com/DursaDefiningGWI

12:32-12:35 Gaard / Helmer

Helmer, Drew, MD, MS, Update on Retrospective Medical Record Review to Establish a Clinical Case Definition for GWI https://tinyurl.com/HelmerCaseDefinition

12:35 – 12:38 **Baraniuk / Steinman**

Baraniuk, James, MD, Cerebrospinal Fluid Proteomics in GWI versus Chronic Fatigue Syndrome https://tinyurl.com/BaraniukCFS

12:38 – 12:41 Ward / Helmer

Davis, Caroline, MD (PI: John Osterholzer, MD), CT-Parametric Response Mapping Identifies Four Radiographic Signatures in the Lungs of Symptomatic Veterans with GWI and Post-9/11 Veterans with Chronic Bronchiolitis https://tinyurl.com/DavisBronchiolitis

12:41 – 12:44 Baraniuk / Pope

Meyer, Joel, PhD, Mitochondrial DNA Copy Number, Damage, and Mitochondrial Respiration in GWI https://tinyurl.com/MeyerMitochondrialDNA

12:44 – 12:47 **Baraniuk / Steinman**

Crawford, Fiona, PhD, Identification of Plasma Biomarkers of Gulf War Illness using "omic" Technology https://tinyurl.com/CrawfordOmics

PATHOBIOLOGY

12:47 – 12:50 **Gaard / Helmer**

Falvo, Michael, PhD (PI: Dane Cook, PhD), Evaluation of Cardiorespiratory Responses during Exercise Challenge Affords Insights into Gulf War Illness https://tinyurl.com/FalvoExerciseChallenge

12:50 – 12:53 Woody / Watts

Wylie, Glenn, DPhil (PI: Dane Cook, PhD), Effects of Post-Exertion Malaise on Veterans with Gulf War Illness: Fatigue and Cognition https://tinyurl.com/WyliePostExertionMalaise

12:53 – 12:56 **Pope / Steinman**

Golomb, Beatrice, MD, PhD, Bioenergetics in Veterans with GWI versus Healthy Controls; Replication and Expansion / Relation of Phosphocreatine Post Exercise Recovery Kinetics to Citric Acid Cycle Intermediates in Veterans with GWI versus Healthy Controls https://tinyurl.com/GolombBioenergetics

12:56-12:59 **Baraniuk / Pope**

Marx, Chris, MD, Biomarker Discovery to New Therapeutics for Gulf War Veterans' Illnesses https://tinyurl.com/MarxBiomarker

12:59 – 1:02 Woody / Casey

Keating, Julie, PhD (PI: Nasia Safdar, MD, PhD), The Impact of the Gastrointestinal Microbiome on GWI https://tinyurl.com/GIMicrobiome

1:02 - 1:05 **Pope / Ward**

Janulewicz Lloyd, Patricia, DSc (PI: Saurabh Chatterjee, PhD, MS), The Gut-Microbiome in Gulf War Veterans: A Preliminary Report https://tinyurl.com/LloydGutMicrobiome

1:05-1:08 Woody / Watts

Chao, Linda, PhD, Incidence of Mild Cognitive Impairment and Hippocampal Atrophy in Deployed Gulf War Veterans https://tinyurl.com/ChaoCognitiveImpairment

1:08 – 1:11 Watts / Baraniuk

Zhang, Yu, MD, PhD (Ansgar Furst, PhD), Brainstem Damage is associated with Poorer Sleep Quality and Increased Pain in Gulf War Illness Veterans https://tinyurl.com/ZhangBrainstemDamage

1:11 – 1:14 Wasvick / Pope

Keledjian, Kaspar, MD (J. Marc Simard, MD, PhD), The Peroxisome Proliferator-Activated Receptor Gamma (PPAR-Gamma) Agonist, Rosiglitazone, Ameliorates Neurofunctional and Gene Expression Abnormalities in a Rat Model of Gulf War Illness https://tinyurl.com/Keledjian

1:14 – 1:17 **Steinman / Gaard**

Alshelh, Zeynab, PhD (PI: Marco Loggia, PhD), In-Vivo Imaging of Neuroinflammation in Veterans with GWI https://tinyurl.com/In-VivoNeuroinflammation

Meeting of the Research Advisory Committee on Gulf War Veterans' Illnesses (RAC-GWVI)
U.S. Department of Veterans Affairs
Wednesday November 18, 2020
Committee Meeting Minutes

Opening Meeting Announcements

Dr. Karen Block, VA Office of Research & Development and Designated Federal Officer, RAC-GWVI

Dr. Block completed the Committee roll call and opened the meeting as a virtual public meeting (due to COVID-19 pandemic) of the Research Advisory Committee on Gulf War Veterans' Illnesses. She noted a quorum for this committee was present on the phone and invited written comments to be sent to her via email as the Designated Federal Officer. The meeting was being recorded and written proceedings of this meeting will be made public. Dr. Block welcomed all Research Advisory Committee (RAC) members and thanked RAC administrative staff Marsha Turner, Managing Director and alternate Designated Federal Officer, and Stan Corpus, Program Coordinator, for pulling the meeting together. She also noted that she is the Director of the Gulf War Research Program at the Office of Research and Development in Washington, DC.

RAC-GWVI Welcome

Lawrence Steinman, MD, Chair, Research Advisory Committee on Gulf War Veterans' Illnesses

Dr. Steinman called the meeting to order and welcomed committee members, speakers, Veterans and guests; and gave a brief overview of the agenda for the current meeting.

Session 1

Message from the VA Secretary (SECVA) video, The Honorable Robert L. Wilkie

The Committee watched a prepared SECVA Public Service Announcement (PSA) which addressed the following:

- Welcome new VA advisory committee members;
- Provide high level feedback on VA's transformation and strategic goals;
- Provide high level discussion on how VA is handling the COVID-19 Pandemic and its effect on Veterans, VA employees or Committee members;
- Provide high level discussion on his expectation from the Committee members; and
- Thank any legacy member whose term expired or member rolling off a Committee.

The SECVA PSA video for VA Advisory Committees can be found here:

https://players.brightcove.net/2851863979001/default_default/index.html?videoId=6180453427001

Session 2

Annual Federal Advisory Committee Act (FACA) Training Jeff Moragne, Director, Advisory Committee Management Office

Annual Advisory Committee training is required to remind FACA Committee members and inform new members of the importance of advisory committees adhering to federal administrative guidelines. Mr. Moragne emphasized that under FACA, Federal advisory committees can be created only when they are essential to the performance of a duty or responsibility conveyed upon the executive branch by law. The Advisory Committee Management Officer oversees the administration of FACA requirements within VA, and a Designated Federal Officer is assigned to each committee (Dr. Karen Block for RACGWVI) to ensure adherence to FACA and other applicable laws, maintain records and provide copies of committee reports for forwarding to the Library of Congress. Mr. Moragne reviewed the FACA charter, committee structure, membership, terms of service, applicable regulations, and standards of conduct. He discussed what constitutes a FACA meeting and best practices for conducting meetings and making recommendations using a SMART template. He described subcommittees and their relationship to the full committee and encouraged cross-committee collaborations with other VA Advisory Committees. Mr. Moragne commended the excellent work of the RAC-GWVI. Each RAC member was given the VA Committee Member Handbook to read in advance of the meeting.

Session 3

VA Gulf War Research Program Update: VA:DoD GWI State of the Science Conference Overview Karen Block, PhD, Director, Gulf War Research, VA Office of Research and Development

Dr. Block described the very first VA State of the Science Conference on Gulf War Illness planned in collaboration with the DoD CDMRP Gulf War Research Program. The virtual conference was held over 2 days and included presentations by VA and DoD research program leadership, a keynote address by a distinguished Gulf War Veteran and former VA Chief of Staff, a Gulf War Veteran panel, followed by oral presentations and pre-recorded poster sessions by current VA and DoD funded investigators. The scientific content was presented in the following categories: Consortia, Biorepositories, Treatments, Epidemiology, Definition and Diagnostic Biomarkers, and Pathobiology.

Session 4

Strategic Planning: GWI State of the Science Review

Lawrence Steinman, MD, Chair, and RAC Committee Members: James Baraniuk, MD, Richard Gaard, Gulf War Veteran, Drew Helmer, MD, Carey Pope, PhD, Barbara Ward, PhD, Jane Wasvick, RN, Bill Watts, Gulf War Veteran, James Woody, MD. Brent Casey, Gulf War Veteran, contributed to the reviews but was unable to attend the discussion.

Dr. Steinman opened this session noting Committee members had been assigned to two person teams to review select oral presentations from the VA:DOD GWI State of the Science held August 18-19, 2020. He charged the Committee with reviewing the selected studies and trials and informing the audience on their thoughts about the research, for example, in terms of producing new insights, producing informative biomarkers, what is being learned from the clinical trials. Committee pairs shared a brief description of themselves before presenting 2-4 minute summaries from both a scientific and/or provider perspective and a Veteran perspective.

Closing Comments

Lawrence Steinman, MD, Chair, Research Advisory Committee on Gulf War Veterans' Illnesses

Dr. Steinman made the strategic decision for this virtual meeting to cover relevant research presentations knowingly without enough time for Q&A and discussion, importantly allowing time for public comment.

Public Comment

Moderated by Bill Watts, Committee Member

Female GW Veteran and Veteran advocate:

- Seeing feedback on social media about cognitive and memory issues, finding words when they're talking, affecting quality of life and daily function, even in younger Gulf War Vets. Indicates aging faster than research has shown.
- Noted provider education is of utmost importance on Gulf War illness, the WRIISC, and GWI
 presumptives. Need education on GWI included in VA orientation program, as is PTSD. May need
 legislation that forces provider education through the WRIISC programs and allow additional
 feedback from Gulf War professionals, veterans and nurses.
- Try to develop diagnostic markers that can be clinically tested to get a better diagnosis and improve claims problem.
- GW will be the last group to get caregiver benefits. Started with post-9/11 and now Vietnam. Need to cover GW quicker given cognitive and memory problems.

Male GW Veteran:

- Liked the idea of this meeting format and which research should be continued. Important to prioritize those that should be continued and send letter to Secretary to improve their care and treatments.
- Claims: Hard to get any claim through. Outside providers don't even know how to diagnose Chronic Fatigue Syndrome (CFS). Can be incapacitated but if on meds, claims are denied because they don't have incapacitation. Raters don't do it right. So you can try to get doctors to understand Multisymptom illnesses but when VA sends people to outside contractors to do these claims they have nothing to do with the VA.
- Thank you very much for the hard work you do. Keep it up.

Male GW Veteran:

- Regarding Dr. Helmer and Dr. Woody talking about exercise study and GWI: in my own experience
 when I do an hour long work-out vs a 30 minute workout, it tends to end my day versus having
 enough energy to function between the two. Are there ongoing studies with that or what is the
 general consensus?
 - Bill Watts: Will pass on contact information for more information on this.
- Glutamate diet: have heard through listeners that gluten is an issue, then once cut out, they've had a better life experience.
- Low dose prednisone: does it affect weight gain or loss?
- ICD-9 codes: rather than continuing the ongoing battle, can we just use the symptoms of GWI to temporarily help educate and get claims passed through the system faster?
- Mission act: has anyone taken this into account when talking about comp and pen and educating doctors. Now not only dealing with new VA doctors but civilian docs not familiar with GWI at all.
 Going to make educating the medical community far worse.
- Genetic studies: still noticing a weak interest although seeing 30 years later it's strongly connected genetically.
- Thank you to the doctors and scientists who have taken interest in trying to find a cure and a better way of life for us. Appreciate it on many levels.
 - Dr. Helmer: Excellent guestions but will require a little more thought.
 - Dr. Block: Will compile questions and answers to respond in writing and make an FAQ section on the RAC website.
 - Dr. Rumm: Also recommend sending questions to Keith Hancock, VBA regarding symptoms of GWI. National Academy airborne hazards report came back with positive findings on symptoms but not conditions. They are looking at this issue right now.

Male GW Veteran:

- Regarding studying 70-year old's, a lot of Gulf War Veterans aren't 70 yet. Ages range from 47-94.
 And death rate now exceeding 100,000 which no one talked about the death rate in the oldest versus the youngest, they're only studying a few of the 70 year old's. Can someone say something about that?
 - Dr. Block: So your question is about the death rate rather than the all-cause mortality?

I mean, in 2016 they mentioned the death rate was over 100,000. Is anyone following that death rate? Is there a count?

- Rumm: I believe that was looked at several years ago. We're focusing more on morbidity or the health conditions. In the next few months will be doing a study looking at chronic diseases in GW Vets. I will look into that and what's been done in mortality and send that to Dr. Block.
- Denial in compensation is very high in Gulf War. It was over 80% a few years ago. We're hearing through the VSOs that the VA is still denying claims for sand exposure, chemical exposures, depleted uranium, PB pill exposure. These veterans have just retired. Unfortunately, the US military has a code that you can't complain until you retire. Still no answers for denial rates. In 2004 /2005 they had a booklet out to teach GWI to the doctors, and they had to sign off on it for their yearly requirements. But we're still lost with denial and compensation.
- Clinical treatment is none for Gulf War. OEF/OIF get all the treatments. I thought this was a non-discriminatory, equal rights etc back in the Obama years in 2012. Looks like they're discriminating against Gulf War veterans in every way. GW is eliminated from any common mayor's or governor's speech. And (female veteran) hit on a nerve with caregivers benefit for GWI. Has to be looked at.
- Caregivers and children of GW Veterans. Study back in 2008 but VA dropped the ball. They discontinued looking at children of GW veterans. A lot of issues and may be some compensation or treatment looking at these veterans with severe disability in their children. Request a response for the next meeting. This is unfinished business. We've been following this since the inception of the RAC and there's a lot of new doctors on council and a lot of new veterans looking for answers. We'd like to see if we can clarify that even with a poster in all the VAs with a better phone number. That 8387 number is probably a recording by now in a closet with no one answers. We need help. Asking for help and not getting it.
 - Dr. Block: We had a person from the VBA talk about the benefits and denial rates at the last meeting. Email me your list of questions and we can put an FAQ sheet on the website. And if you haven't heard back on something specific that doesn't mean we're not working on it. Send to karen.block@va.gov.
- I missed the last agenda/meeting because my injuries and illnesses take over. I'm almost like slipping away from GW stuff because there's really no activity other than VA RAC speaking. We need help, need more encouragement. Probably need other meetings other than the veterans forum meeting.
- Male GW Veteran via Adobe Chat: I have chronic multisystem issues and the VA sees abnormal results in my tests but downplay and dead-end any further action. How can this be fixed? They see damage in my MRI but no help or further looking into beyond MRI.

Female Veteran via Adobe Chat: I have issues with skin rashes, sleep apnea, nightmares, depression and anxiety. How do I get tested for Burn Pit?

- Dr. Rumm: It's very simple. Every GW Veteran is also eligible for the Airborne Hazards and Open Burn Pit Registry. We are combining exams for the Gulf War Registry and the Airborne Hazards Registry. It's online to get into, then an exam is second part. The easiest way is to email Dr. Block. She will email me and we will get you hooked up with the people in the program to make sure you get an exam. The bottom line is every single GW veteran is eligible for the Airborne Hazards Registry. We're trying to make it a one step process to get in both registries with one exam.
- Dr. Block: Bill will have the two people on adobe chat contact me and I'll help them get connected with the right person.
- Dr. Helmer via Adobe Chat: If you were deployed and have unexplained chronic symptoms, the WRIISC might be able to help you get a clinical evaluation. https://www.warrelatedillness.va.gov/WARRELATEDILLNESS/index.asp

Female Veteran:

Couldn't go to Gulf War but I have all the signs and symptoms of GW syndrome. My son has all
the Gulf War syndrome. The VA treats me like there's something wrong with me because I have
PTSD and they don't do anything to help with my thyroid because my thyroid is enlarged. Outside
doctors are telling me I have radiation contamination. Who do I believe? The outside doctor or
the VA?

- Dr. Block: Obviously we don't have all the medical information, and this isn't a place to put that, but Dr. Rumm could you talk about how the VA is handling non-deployed with GWI symptoms? This has come up a number of times.
- Dr. Rumm: We know from literature with Dr. Dursa that there are rates of GWI in non-deployed in other situations. The bottom line though, is there is also a significant difference in the rate between the two populations. Hasn't been studied a lot recently, that I'm aware of. There were some older studies looking at non-deployed population for Gulf War. I think you know, first off, anyone who served has a right to file a claim, but it will be more difficult to get approved if you weren't there. Because we don't have a definition and other issues with Gulf War illness. However, I believe thyroid cancer has certain environmental factors that may or may not be associated with it. Will get your email from Dr. Block and look into it. I'll try to give her the best advice I can. This kind of individual situation depends on where the person was stationed and what other things they might have been involved with, if any radiation exposures were documented, things like that with the thyroid. Let's not talk about personal situation on the phone. Let's have her contact by email and I'll get back to her.
- Dr. Block gave her email address Karen.Block@va.gov.
- Million Man Program, may I make a suggestion that somebody follow-up and see if our children that
 are affected, because we've had some of those people in to the RAC meetings in DC. Is there a way
 they can get blood from the Veteran, from the spouse and from the child so we can do look into the
 genetic problem?

Dr. Peter Rumm, Pre-9/11 Era-Program Post-Deployment Health Services, announced four big projects starting this year, three of which are on Gulf War: 1) liver cancer / liver diseases, 2) chronic conditions, and 3) health disparities, racial and ethnic disparities in Gulf War. These are expected to be done within the next nine months.

Dr. Steinman, Chair, thanked everyone for their attention to the presentations. Noted information on future meetings will be forthcoming, RAC contact information is available, and noted the committee is working very hard on behalf of veterans' Gulf War illness. Meeting adjourned.

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