# BIOGRAPHIES

## Meeting of the Research Advisory Committee on Veterans' Gulf War Illnesses

## RAC-GWVI

## October 3 & 4, 2019

### RAC-GWVI LEADERSHIP

**Lawrence Steinman, M.D.** Dr. Lawrence Steinman, RAC-GWVI Chair, received his BA in physics from Dartmouth College, graduating Magna Cum Laude in 1968, and graduated from Harvard Medical School in 1973. He did an internship and residency in neurology at Stanford University and from 1974 to 1977 and was a post-doctoral fellow in the Department of Chemical Immunology at the Weizmann Institute of Science in Israel, receiving an NIH post-doctoral Fellowship. Dr. Steinman is Board Certified in Neurology and Psychiatry, is Senior Attending Physician at Stanford's Hospitals, the Zimmerman Professor of Pediatrics and Neurology, and from 2002 to 2011 he served as Chairman of the Interdepartmental Immunology Program. He received teaching awards during this time, particularly for his course on the Brain and the Immune System. He served in 2014–2015 on the Institute of Medicine–National Academy of Science panel on Considerations for Designing an Epidemiologic Study for Multiple Sclerosis (MS) and Other Neurologic Disorders in Pre and Post 9/11 Gulf War Veterans. Dr. Steinman received numerous honors: From 1988 to 2002 he twice received the Senator Jacob Javits Neuroscience Investigator Award from the National Institute of Neurological Diseases and Stroke. In 1994, he won the Friedrich Sasse Prize from the Free University of Berlin. In 2004, he won the John Dystel Prize from the American Academy of Neurology and the National Multiple Sclerosis Society. In 2008, he received an Honorary Doctorate from Hasselt University. In 2009, he was elected to the Institute of Medicine, now called the National Academy of Medicine. In 2011, Dr. Steinman won the Charcot Prize for Lifetime Achievement in MS research from the International Federation of MS Societies. In 2015, he received the Cerami Award in Translational Medicine. In 2017, he was elected a Fellow of the American Association for Advancement of Science. In 2015, he became the first neuroimmunologist elected to the National Academy of Sciences. Dr. Steinman's research focuses on what provokes relapses and remission in multiple sclerosis, the nature of the molecules that serve as a brake on the brain inflammation, and the quest for a tolerizing vaccine for autoimmune diseases like type 1 diabetes and neuromyelitis optica. He has developed two antigen-specific therapies, using DNA vaccines, for MS and type 1 diabetes. He was senior author on the seminal 1992 *Nature* article that reported the key role of a particular integrin in brain inflammation. This research led to the development of the drug Tysabri, which is used to treat patients with MS and Crohn's disease. Dr. Steinman holds patents in the areas of immunology and for therapies of Huntington Disease, type 1 diabetes, and MS. He cofounded Neurocrine Biosciences, Bayhill Therapeutics now named Tolerion, Nuon Therapeutics, Transparency Life Sciences, and Atreca.

**Karen Block, Ph.D.** Dr. Karen Block, RAC-GWVI Designated Federal Officer (DFO), is a nationally and internationally recognized expert in the field of molecular mechanisms driving human disease with focus on the role of oxidative stress in carcinogenesis, cancer-drug resistance, and diabetes-induced organ damage. Academically, Dr. Block was an Associate Professor of Medicine who served as an Executive member of the Cancer Therapy and Research Center and Associate Director of Shared Resources at the University of Texas Health Science Center at San Antonio and was a health research scientist with the VA since 2005. Her career is balanced with solid independent National Institutes of Health and VA funding achievements, publication of scientific manuscripts in high impact factor journals, authorship of expert review articles and book chapters, participation in and chairing of grant reviews and University programs as well as steering committees, and performance of site visits in addition to training clinician- and non-clinician-scientists. She joined the Office of Research and Development in Washington D.C. in 2016.

**Marsha Turner, M.S.Ed.** Marsha Turner, RAC-GWVI Acting Managing Director and Alternate Designated Federal Officer, has extensive experience in clinical and coordinated research initiatives with career focus on chronic unexplained medical conditions and stress-related disorders. Ms. Turner is currently working with the Gulf War Research Resource at the Cooperative Studies and Epidemiology Center (CSPEC) in Durham, North Carolina and has coordinated research initiatives within the VA since 2011. She has a strong interest in improving quality of life for families living with chronic health conditions.

## RAC-GWVI MEETING PRESENTERS

**Laila Abdullah, Ph.D.** Dr. Abdullah is a research biologist in the Research Services at James A. Haley VA Hospital in Tampa, Florida, and a Scientist III at the Roskamp Institute in Sarasota, Florida. She has over 15 years of experience in clinical and basic science research, particularly in the field of neurodegenerative illnesses as well as expertise in applying lipidomics, metabolomics, and proteomics to technology in translational research into Gulf War Illness (GWI). Before embarking on her Ph.D. training, she received an M.S. in Epidemiology from University of London, which provided her with necessary expertise in conducting epidemiological studies and clinical trials. She applied her clinical research training to identify biomarkers of Alzheimer's disease (AD), GWI, and traumatic brain injury (TBI). As part of her PhD training, she developed and characterized mouse models of GWI to facilitate identification and preclinical testing of novel therapies in GWI mouse models. These GWI mouse models now form the basis of most translational work conducted at the Roskamp Institute. Upon graduating in 2012, Dr. Abdullah received Congressionally Directed Medical Research Program and VA Merit awards, which allowed her to establish a team that identified lipid dysfunction as one of the contributing factors in the etiology of GWI and to discover that targeting mitochondria pathways may provide novel therapeutic avenue for treating GWI. This collective work now forms the basis of her GWI drug discovery platforms, and these projects are at the various stages of preclinical and clinical development.

**Melvin Blanchard, M.D.** Dr. Blanchard is Professor of Medicine at Washington University in St. Louis, where he is Vice Chair for Education in the Department of Medicine and Chief of the Division of Medical Education. From 1997 to 2006, he was employed by the St. Louis Veterans Affairs (VA) Medical Center and for much of that time was engaged in research on Veterans' health, funded by the VA. His research focus has been the Health of the 1991 Gulf War Veterans and their families. Dr. Blanchard and his research team have published research findings on the health of Veterans, their spouses, and off-spring.

**Christopher B. Brady, Ph.D.** Dr. Brady, a neuropsychologist, serves as a Co-Principal Investigator and Director of Scientific Operations of the VA Biorepository ALS Brain Bank and the VA Gulf War Veterans Illnesses' Biorepository at VA Boston Healthcare System (VABHS). Dr. Brady is also a co-investigator on the National PTSD Brain Bank and the Stress, Health and Aging Research Program at VABHS. He is an Assistant Professor of Neurology and Behavioral Neuroscience at the Boston University School of Medicine and Lecturer in the Division on Aging at Brigham and Women's Hospital, Harvard Medical School. His research examines the effects of disease and aging on higher-order cognitive functions that have been suggested to be mediated by the frontal lobes of the brain (e.g., executive cognitive functions), compared with cognitive functions largely mediated by other brain regions (e.g., memory, visuospatial functions). His clinical training responsibilities involve clinical supervision in neuropsychological assessment with predoctoral interns and postdoctoral fellows in the American Psychological Association-approved Boston Consortium in Clinical Psychology Internship at VABHS.

**Linda Chao, Ph.D.** Dr. Chao, a cognitive neuroscientist, is an Adjunct Professor in the Departments of Radiology and Biomedical Imaging and Psychiatry at the University of California, San Francisco, as well as a Research Biologist at the San Francisco Veterans Affairs Medical Center. She has studied Gulf War (GW) Veterans and Gulf War illness (GWI)-related issues for the past 15 years. Her GW research program at the San Francisco VA uses a three-pronged approach to understand and treat Gulf War Illness: (1) examining the effect of exposures to specific Gulf War-related neurotoxicants on brain structure and brain function (VA Merit Review Awards CX0007080 and CX000798), (2) examining the role of genetic differences in responses to Gulf War-related exposures (DOD/CDMRP W81XWH-16-1-0558), and (3) developing and evaluating interventions that may help alleviate the symptoms of GWI (VA Merit Review Award CX001428). She has published and, more importantly, replicated some of the first neuroimaging evidence of reduced brain and hippocampal volume and white matter abnormalities in GW Veterans with predicted exposure to the Khamisiyah plume. Sleep disturbance is a common complaint among GW Veterans suffering from GWI and, in 2016, Dr. Chao published the first study to document subjective sleep disturbances in GW Veterans. Not only were there significant, positive correlations between insomnia severity, subjective sleep quality, and GWI symptom severity, but also insomnia severity significantly predicted GWI status over and above demographic and clinical variables. Despite that many GW Veterans have memory complaints, most neuropsychological studies to date have found little evidence of a correspondence between subjective and objective measures of cognitive function in GW Veterans. In 2017, Dr. Chao published the first study to show objective memory impairments in deployed GW Veterans with subjective memory complaints. Her research also revealed that self-reports of hearing chemical alarms sound during deployment is inversely associated with regional brain volumes and visuospatial function in GW Veterans. This is significant because many GW Veterans heard chemical alarms sound in theater during deployment. These results suggest that exposure to whatever substances triggered the chemical alarms likely had adverse neuroanatomical and cognitive effects on GW Veterans. In 2016, Dr. Chao became involved with photobiomodulation (PBM) research when she was asked by the Senior Program Manager of the Gulf War Illnesses Research Program at the VA to be the site Principal Investigator of a VA-funded clinical trial of PBM treatment for enhancing cognitive function in Veterans with GWI. The study, based at the Boston VA, was having problems recruiting enough GW Veteran participants. Since 2016, Dr. Chao applied for, and received, two UCSF pilot awards to investigate the effects of PBM treatments on behavior, brain function, and blood and central spinal fluid biomarkers of Alzheimer's Disease pathology in patients with dementia. She recently published the results of the two pilot PBM studies, one describing the effects of PBM on dementia symptoms. The other is a case report describing the effects of PBM on GWI symptoms in two GW Veterans. Dr. Chao's publication and research track record demonstrate that she has the necessary background and expertise to successfully carry out all aspects of proposed projects, together with the strong team of co-Investigators that she has assembled.

**Katherine Hendricks, M.D., M.P.H. & T.M**. Dr. Hendricks is board certified in preventive medicine, has a tropical medicine degree, and started, in 1987, her public health career in Mississippi as Epidemic Intelligence Service officer. Currently as the Medical Officer for Special Pathogens Branch at the Centers for Disease Control and Prevention, Dr. Hendricks serves as an anthrax subject matter expert and focuses on clinical anthrax and biopreparedness issues, particularly medical countermeasures. Previously, she was a public health physician for the state of Texas where she directed infectious disease epidemiology, edited the state's biweekly morbidity report, served as principal investigator for a neural tube defect project, and following a stint in the nonprofit world, served as the chief public health officer for the prison system. She has more than 60 peer-reviewed publications on infectious, developmental, nutritional, and environmental topics. She is particularly interested in the issue of susceptibility to infectious diseases. Dr. Hendricks has been interested in anthrax since 1985 when she cared for a young Zimbabwean girl with a cutaneous case from exposure to a dead goat.

**Albert Y. Leung, M.D.** Dr. Leung is a Professor of Anesthesiology and Pain Medicine at the University of California, San Diego, School of Medicine. He is the Director of the Center for Pain and Headache Research at the VA San Diego Healthcare System (VASDHS) and a Research Scientist for the Veteran Medical Research Foundation. His research focuses on the mechanisms and effectiveness of non-invasive brain and peripheral stimulation for nerve function restoration and headache/pain relief. He founded the first transcranial magnetic stimulation (TMS) clinical unit for pain and headache treatment in the VA system a decade ago. He directs the Center for TMS at the VASDHS. His research received funding support from the National Institutes of Health (NIH), the Department of Defense (DOD), and the Veteran Affairs Office of Research and Development (ORD).

**Lisa M. McAndrew, Ph.D.** Dr. McAndrew is a Research Scientist, Acting Director of Research, and Fellowship Director at the Veterans Affairs New Jersey Healthcare System, War Related Illness and Injury Study Center (WRIISC) and an Assistant Professor at the University at Albany, Department of Educational and Counseling Psychology. Her research seeks to understand Gulf War Veterans' experiences with Gulf War illness and use this information to develop non-pharmaceutical interventions that Gulf War Veterans want to receive. Dr. McAndrew is the Principal Investigator of VA-funded research studies on Gulf War illness including: (1) the second largest clinical trial for Gulf War illness that compared problem-solving treatment to health education, (2) a multi-site observational study of how providers and Gulf War Veterans can best communicate about Gulf War illness, and (3) an effectiveness-implementation trial of best models to deliver care to Gulf War Veterans (starting 2020). This work has recruited over 500 Gulf War Veterans with Gulf War illness and has included over 150 qualitative interviews with Gulf War Veterans about their experiences with Gulf War illness. Dr. McAndrew was on the committee that wrote the VA's updated Gulf War Research Strategic Research Plan. Her work has led to over 40 peer-reviewed publications and over 6 million dollars in federal funding. She has disseminated this work directly to VA providers through webinars and national conferences.

**Bennett Porter, Ph.D.** Dr. Porter completed his Ph.D. studying social psychology with a minor in data analysis at University of Houston. Since 2013, he has been a team member of the Millennium Cohort Study conducted out of the Naval Health Research Center in San Diego. Additionally, he recently joined the Social Science Research Center at Mississippi State University as an Assistant Research Professor. His work with Gulf War Veterans has focused on analyzing data from the Millennium Cohort Study, which is the largest longitudinal cohort of U.S. service members collected to date. This study has been following enrolled participants since 2000, providing valuable and ongoing longitudinal health and well-being records of the 9,000 Gulf War Veterans enrolled in this study.

**Ian Robey, Ph.D.** Dr. Robey is the Technical Director of the VA Biorepository ALS Brain Bank and the VA Gulf War Veterans Illnesses' Biorepository at Southern Arizona VA Health Care System (SAVAHCS) in Tucson Arizona. Dr. Robey is the co-principal investigator of the VA Biorepository at SAVAHCS (VAB-SAVAHCS): Specimen storage and nucleic acid isolation for VA CSP #380 follow-up, Longitudinal Analysis of Screening Colonoscopy project and the VA Biorepository at SAVAHCS (VAB-SAVAHCS): CSP #577 Biorepository Pilot Study for CONFIRM Trial project. He is also a research affiliate at the Department of Medicine, University of Arizona. Dr. Robey is responsible for central nervous system tissue grossing and dissection, providing scientific and technical guidance to tissue requestors, and research/standard operations development. He is instrumental in serving as a liaison with requesting investigators and the pre-reviewing of tissue requests. Dr. Robey coordinates the day-to-day activities of the biorepository, including budget oversight, data management, annotated data collection, and overseeing Institutional Review Board and Research and Development Committee protocols. Finally, Dr. Robey organizes the Biorepository Tissue Access Committee which involves reviewing and approving all requests from the research community for access to tissue and data from the VA Biorepository Brain Bank (VABBB).

**Peter D. Rumm, M.D., M.P.H., FACPM.** Dr. Rumm serves as the Director of Pre-911 Era Environmental Health Services in VA Post-Deployment Health Services where he oversees several complex national programs dealing with environmental issue for Veterans. In 2017, he was selected for a very competitive Leadership VA training and then served on the Board of Directors of the LVA alumni association for a year as its communication lead. Dr. Rumm is a pediatrician and board-certified preventive medicine physician. He came to VA from the Food and Drug Administration (FDA) where he held senior positions including as Deputy Director, Division of Surgical, Orthopedic and Restorative Devices (DSORD) — a large medical device review division. Dr. Rumm graduated from the Medical College of Georgia and received a Master of Public Health degree from the University of Washington. He is a Fellow of the American College of Preventive Medicine (ACPM). He has served in leadership positions for ACPM, the American Academy of Pediatrics (AAP), and the American Association of Public Health Physicians (AAPHP). Dr. Rumm also attained Advanced Standing in the American College of Physician Executives. Dr. Rumm was formerly the State of Wisconsin, Chief Medical Officer and Epidemiologist, Division of Public Health. He served as an Associate Professor, Department of Environmental and Occupational Health and Director, Center for Public Health Readiness and Communication, Drexel School of Public Health, Philadelphia. While at Drexel, Dr. Rumm served on the Board of Directors of the regional Mercy Health Care System. He has served on other boards including the National Advisory Committee on Children and Terrorism, the Wisconsin Patient Safety Foundation, The Tropical Medicine Society of Baltimore (current), and Rotary International (Chapter President). He recently was elected Vice-President of the Behavioral Health Section of the American College of Occupational and Environmental Medicine. Dr. Rumm's former professional positions include Chief of the Division of Epidemiology at the U.S. Army Center for Health Promotion and Preventive Medicine in Landstuhl, Germany, and Officer in Charge of Canal Zone Health Care Clinics in Panama where he also provided medical oversight of Cuban Refugee Camps. He also served as a part-time editor for the Office of the U.S. Surgeon General while at FDA and was selected to command NATO Supreme Headquarters Allied Powers Europe in Belgium. Dr. Rumm's awards include a career Columbus State University alumni award, an Order of Malta Award for public health service from the military of Italy, a commendation from the Lithuanian government, and several U.S. military awards. Dr. Rumm has several dozen professional publications and two book chapters. He has lectured extensively in domestic and international venues.

**LaTonya L. Small, Ph.D.** Dr. Small has over 25 years of human resources and related experience in working for the Federal Government, private sector, and non-profit organizations. In various capacities, she has developed, managed, facilitated, and evaluated organizational and leadership programs, training initiatives, strategic planning, workforce development, policy implementation, and staffing for several agencies. Her vast technical knowledge and experience has enabled her to be viewed as an expert in the areas of leadership, project/program management, training, and organizational development. Dr. Small currently works for the Department of Veterans Affairs (VA) as a Program Specialist for the Advisory Committee Management Office to oversee and manage VA Federal Advisory Committees. Prior to VA, she worked for the Defense Threat Reduction Agency (DTRA) where she served as the Freedom of Information Act (FOIA) and Privacy Act Office Chief overseeing FOIA requests and privacy act issues for the Agency. From September 2010 to December 2012, she was the Executive Training and Development Specialist for the VA's Corporate Senior Executive Management Office (CSEMO). In this role, she developed, recommended, and managed department-wide Senior Executive (SE) training programs and procedures for its executive cadre of 500. In other capacities, Dr. Small served as a Senior Training Officer with the Corporation for National and Community Service (CNCS), a Human Resources Specialist for Office of Personnel Management (OPM), and an Evaluator for the U.S. General Accountability Office (GAO) Kansas City Region. Dr. Small is a graduate of The George Washington University where she earned her Doctorate Degree in Human Resources Development. She also earned a Master's Degree in Public Administration from The University of Missouri-Columbia and a Bachelor of Science Degree in Business Management from Hampton University. Dr. Small is also the proud mother of Alexis LeNay who is her inspiration and joy.