

DEFENSE HEALTH BOARD MEETING JUNE 2, 2016

Defense Health Headquarters 7700 Arlington Blvd. Falls Church, VA 22042

1. ATTENDEES – ATTACHMENT ONE

2. CLOSED SESSION

CAPT Lisa Pearse provided a classified briefing to the Defense Health Board (DHB) members on the mission and functions of the National Center for Medical Intelligence and discussed emerging medical threats to the Department of Defense (DoD) and their surveillance. This presentation was closed to the public because it concerned matters listed in section 552b(c)(1) of title 5, United States Code.

3. OPEN SESSION

a. Administrative & Opening Remarks

Dr. Dickey opened the meeting and welcomed the attendees. Ms. Bader called the meeting to order as the DHB Designated Federal Officer. Dr. Dickey noted the tragic loss of DHB member Dr. John Baldwin and reviewed his remarkable career and contributions to the Board. Following a moment of silence to honor Service members and remember Dr. Baldwin, meeting attendees introduced themselves.

b. Defense Advanced Research Projects Agency (DARPA) Medical Research

Dr. Justin Sanchez, Director of the Biological Technologies Office (BTO), described the history of DARPA, then provided an overview of the BTO office mission and research portfolio. He stated that the BTO is focused on building scientific capabilities for scenarios that Service members encounter frequently. He then noted three of DARPA's research initiatives related to neurotechnology, including the "Revolutionizing Prosthetics" program, which focuses on upper extremity prosthetics. A recent project highlighted under this program involves brain control of a robotic arm.

COL Matthew Hepburn, a BTO Program Manager, then reviewed four programs in the BTO infectious diseases research portfolio, including the "Prometheus" program, which forecasts and predicts emerging infectious diseases six months forward. COL Hepburn added that DARPA has a dynamic research environment, conducting early, breakthrough research that is transitioned to others in the government or commercial sector. Dr. Douglas Weber, a BTO Program Manager

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in neural engineering, then described two programs in his research portfolio, including the "HAnd Proprioception and Touch Interfaces (HAPTIX)" program. This program is creating a prosthetic hand system that moves and provides natural sensations to increase long-term use of prostheses in amputees.

The group discussed the benefits of such prosthetic devices, including controlling the perception and sensation of phantom limb pain, as well as the psychological benefits associated with living in less pain. Board members had previously been briefed on the Deka arm that was developed by DARPA, which received approval from the Food and Drug Administration (FDA) in 2014. Dr. Weber stated that DARPA is advancing research to connect such devices with the user's nervous system. The briefers also noted that DARPA consistently engages with the "performers" that have been awarded contracts to assess performance and help guide and accelerate the research. Further, DARPA can award contracts to almost any country in the world, and Program Managers have the autonomy to suggest investments to DARPA.

c. Army Study to Assess Risk and Resilience in Servicemembers (STARRS)

Dr. Robert Ursano, Director, Center for the Study of Traumatic Stress at the Uniformed Services University of the Health Sciences, presented an overview of the work to date under the STARRS-Longitudinal Study (STARRS-LS). STARRS-LS is: (1) examining the concentration of risk, particularly by who, when, and where suicidal behavior is being exhibited; (2) identifying risk sub-groups to target for intervention; (3) using neurocognitive tests to identify those at risk and possible neurocognitive functioning associations with suicidal behavior; and (4) identifying biomarkers for those at risk and determining possible neurobiologic mechanisms.

Dr. Ursano then reviewed the completed STARRS-LS studies and their findings to date, such as the "Longitudinal Evaluation of the Effect of Deployment-acquired Traumatic Brain Injury (TBI) on Posttraumatic Stress and Related Disorders" study. The investigators concluded that after adjusting for risk factors, deployment-acquired TBI was associated with elevated odds of posttraumatic stress disorder (PTSD), generalized anxiety disorders, and major depressive episodes. Dr. Ursano also reviewed the study, "Suicide Attempt Risk among Regular Army Enlisted Soldiers," which indicated that the highest risk of suicide attempt is in the second or third month of service, likely when soldiers are completing basic training.

Dr. Ursano stated there are more suicide attempts in the U.S. than heart attacks and what drives suicide attempts should be treated as a public health question. Dr. Ursano and members discussed prevention of suicide, noting that even a gesture such as a caring letter post-hospitalization could help reduce suicide attempts. The group also discussed that those with PTSD are at greater risk for other medical conditions, such as cardiovascular disease and allostatic load.



d. Advances in the Use of Whole Blood for Combat Trauma Resuscitation

CAPT Roland Fahie, Director of the Armed Services Blood Program (ASBP), provided a brief overview on ASBP research and development initiatives, including freeze dried plasma, whole blood pathogen reduction, and cryo-preserved platelets. The ASBP's primary mission is to get blood to warfighters when they need it. Currently, ASBP is collaborating with the U.S. Army Institute of Surgical Research, U.S. Army Medical Research and Materiel Command, and industry partners to extend the shelf-life of platelets beyond 72 hours to at least 14 days. CAPT Fahie then highlighted the benefits of the freeze-dried plasma, which can be reconstituted with water, used far forward to reduce hemorrhage mortality, and does not require freezing.

LTC Jason Corley, Deputy Director of the Army Blood Program, then presented an overview of the use of whole blood in the pre-hospital setting. He noted the journal articles as well as the clinical practice guidelines published by the Joint Theater Trauma System regarding its use in combat trauma patients. He then reviewed the 75th Ranger Regiment Ranger O Low Titer (ROLO) Program, manufactured whole blood by the ASBP, and future initiatives of the Army Blood Program.

The 75th Ranger Regiment requested support in May 2015 for the ROLO Program to identify low-titer Group O whole blood donors prior to deployment of personnel. The ROLO Program is currently active in the U.S. Central Command area of operations, in which low titer Group O whole blood is collected prior to high-risk missions. The Army Blood Program established whole blood production at the Armed Services Blood Bank Center – Pacific Northwest, Joint Base Lewis McChord; the blood has a 21 day shelf life and is licensed by the FDA. LTC Corley added that the low titer Group O pre-screening program will be expanding to other U.S. Army Special Operations Command Units. CAPT Fahie and LTC Corley stated they hoped the ROLO Program would be expanded to all of the Combatant Commands. LTC Corley also noted the current Tactical Combat Casualty Care clinical practice guidelines do not specify how to obtain fresh whole blood and additional guidance on this topic would be helpful.

e. Infectious Disease Clinical Research Program

CAPT Timothy Burgess, Director of the Infectious Disease Clinical Research Program (IDCRP), provided an overview of the program's history, vision, and mission. The IDCRP is a collaborative effort between the Uniformed Services University of the Health Sciences, military treatment facilities (MTFs), DoD biomedical research and development commands, the National Institute of Allergy and Infectious Disease (NIAID), and other partners. Chartered by the Assistant Secretary of Defense for Health Affairs in 2006, the IDCRP is a groundbreaker in: (1) coordinating research from numerous and geographically diverse entities/locations; (2) standardizing and simplifying the Institutional Review Board (IRB) process for multi-center studies; and (3) leading the way in innovative, collaborative, and impactful research.

CAPT Burgess reviewed IDCRP's seven military-relevant research areas, such as deployment/travel-associated infections or skin and soft tissue infections, their strategic plan

Page 3 Initials aims, and findings to-date. He then highlighted IDCRP's impact on health policy and clinical practice guidelines. For example, DoD's HIV cohort was cited by the Institute of Medicine to help create new Social Security HIV disability ratings. The group noted the relevance of IDCRP's research for both the military and civilian populations, citing the consultations with IDCRP's clinical expertise related to wound invasive fungal infections after the Joplin tornado in Missouri. IDCRP was highlighted as a model for collaborative research, and its single IRB has helped streamline DoD clinical research trials. CAPT Burgess stressed the IDCRP is aiming to develop the next generation of clinical researchers.

f. Health Care Delivery Subcommittee Update: Pediatric Clinical Preventive Services

Dr. George Anderson, Chair of the Health Care Delivery Subcommittee, reviewed the Subcommittee's efforts on the Pediatric Clinical Preventive Services tasking. Dr. Anderson reviewed key areas of interest, such as the monitoring of pediatric preventive services. Currently, the Department of Defense (DoD) relies on multiple, non-interoperable data sources. Other areas of key interest to the Subcommittee include MHS pediatric care metrics; comparing TRICARE services to Medicaid's Early and Periodic Screening, Diagnostic, and Treatment program, the Affordable Care Act, and other national guidelines/recommendations for pediatric care; and mechanisms to share best practices. The group discussed that the multiple, non-interoperable data sources hinder the ability to obtain an accurate picture of the overall immunization status of DoD's pediatric beneficiaries. Members also noted the possible presence of vaccine denial groups in the Military Health System (MHS), which may be affecting immunization rates.

g. Public Health Subcommittee Update: Improving Defense Health Program Medical Research Processes

Dr. H. Clifford Lane, Chair of the Public Health Subcommittee, reviewed the Subcommittee's work on the tasking, Improving Defense Health Program (DHP) Medical Research Processes. He described DoD medical research successes and historical contributions, including the impact of combat casualty care research. He then noted preliminary observations made by the Subcommittee, including factors leading to the deterioration of some aspects of DoD research processes and programs. These included the level of infrastructure support for medical research, especially human subjects research; DoD research laboratories competing for funding that may or may not support Service priorities while DoD funds may simultaneously flow to external entities in support of these priorities; the lack of clear research career paths; and the vanishing pool of senior researchers for leadership/mentorship.

Dr. Lane also noted the Subcommittee has observed that Commanders of military treatment facilities with a designated research mission are not evaluated on research conducted in their facility, there is a lack of standardized research performance metrics, and research appears to be conducted "on your own time." The group discussed that research is a profession, not a hobby, and the Subcommittee has not seen a clear career path to becoming a Commander of a research institution, either. He stated these issues implicitly devalue research. Further, he added that

Page 4 Initials increasingly complex bureaucracy requires leadership and investigators to manage competing and sometimes duplicative demands. Board members discussed the unique research that can be done under DoD and the importance of removing these barriers to advance the science. Board members also suggested the Subcommittee review past research career paths in the Services, citing a previous career path in the Air Force to become an investigator in human performance research.

4. **NEXT MEETING**

The next DHB meeting is scheduled for August 9-10, 2016, in San Antonio, Texas

5. CERTIFICATION OF MINUTES

Tany W. Duly Mo

I hereby certify that, to the best of my knowledge, the foregoing meeting minutes are accurate and complete.

Nancy W. Dickey, MD

President, Defense Health Board

08/09/2016

Date

ATTACHMENT ONE: MEETING ATTENDEES

BOARD MEMBERS						
TITLE	LAST NAME	FIRST NAME	ORGANIZATION			
Dr.	Anderson	George	Defense Health Board (DHB) Second Vice President Former Executive Director, The Society of the Federal Health Agencies			
Dr.	Blakely	Craig	Professor and Dean, School of Public Health and Information Sciences, University of Louisville			
Dr.	Bullock	M. Ross	Professor, Neurosurgery; Director, Neurotrauma Care, University of Miami			
Ms.	Carroll	Bonnie	National Director, Tragedy Assistance Program for Survivors, Inc.			
Dr.	Dickey	Nancy	DHB President Professor, Department of Family and Community Medicine, Texas A&M University			
GEN	Franks	Frederick	Former Commanding General, U.S. Army Training and Doctrine Command			
Dr.	Gordon	Steven	Chairman, Department of Infectious Diseases, Cleveland Clinic Foundation			
Dr.	Groopman	John	Anna M. Baetjer Professor of Environmental Health, Department of Environmental Health Sciences, Bloomberg School of Public Health, Johns Hopkins University			
Dr.	Hovda	David	University of California, Los Angeles Neurosurgery, Departments of Surgery and of Molecular and Medical Pharmacology Director, UCLA Brain Injury Research Center			
Dr.	Jacobs	Lenworth	Chief Academic Officer and Vice President of Academic Affairs, Hartford Hospital			
Dr.	Jenkins*	Donald	Consultant, Division of Trauma, Critical Care and General Surgery; Professor of Surgery, College of Medicine; Medical Director, Trauma Center, Mayo Clinic			
Dr.	Lazarus	Jeremy	Clinical Professor of Psychiatry, University of Colorado Denver School of Medicine			
RADM (Ret.)	Lane	H. Clifford	Director, Division of Clinical Research, National Institute of Allergy and Infectious Disease, National Institutes of Health			
RADM (Ret.)	Martin	Kathleen	Chief Executive Officer, Vinson Hall Corporation, LLC			
Gen (Ret.)	Myers*	Richard	DHB First Vice President RMyers & Associates LLC			
Dr.	Poland*	Gregory	Director, Mayo Vaccine Research Group; Director for Strategy, Center for Innovation, Mayo Clinic and Foundation			
			ITED GUESTS & STAFF			
TITLE	LAST NAME	FIRST NAME	ORGANIZATION			
Dr.	Ahlers	Stephen	Director, Operational & Undersea Medicine Directorate, Naval Medical Research Center			
Ms.	Austin	Lisa	DHB Task Lead, Grant Thornton LLP			
Dr.	Baer	David	Deputy (Acting) Principal Assistant, Research and Technology,			



			U.S. Army Medical Research and Materiel Command (USAMRMC)
Ms.	Bader	Christine	DHB Executive Director/Designated Federal Officer (DFO)
CAPT	Bree	Stephen	Surgeon Captain Royal Navy, British Liaison Officer (Deployment Health)
САРТ	Burgess	Timothy	Director, Infectious Diseases Clinical Research Program (IDCRP), Navy Medicine Specialty Leader for Infectious Diseases
MG	Caravalho	Joseph	Joint Staff Surgeon, Office of the Chairman of the Joint Chiefs of Staff
Dr.	Cordts	Paul	Deputy Director, Healthcare Operations, Defense Health Agency
LTC	Corley	Jason	Deputy Director, Army Blood Program
CAPT	Fahie	Roland	Director, Armed Services Blood Program
Ms.	Gaviola	Camille	DHB Deputy Director/Alternate DFO
CAPT	Hall	Eric	Executive Officer, Naval Medical Research Center (NMRC)
COL	Hepburn	Matthew	Program Manager, Biological Technologies Office (BTO), Defense Advanced Research Projects Agency (DARPA)
Ms.	Higgins	Sara	DHB Analyst, Grant Thornton LLP
LCDR	Kasper	Matthew	Director, Field Laboratory Operations, NMRC
Dr.	Kellermann	Arthur	Dean, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences (USUHS)
Mr.	Kiyokawa	Guy	Deputy Director, Defense Health Agency (DHA)
CDR	Lam	Alan	Public Health, U.S. Navy Bureau of Medicine and Surgery (BUMED)
Brig Gen	McClain	James	Commander, Air Force Medical Support Agency (AFMSA)
Col	Oh	John	Chief, Preventive Medicine, AFMSA
RDML (Select)	Pearigen	Paul	BUMED Liaison to DHA, Chief of the Navy Medical Corps
CAPT	Pearse	Lisa	Clinical Consultant, National Center for Medical Intelligence
Dr.	Porter	Kevin	Director, Infectious Diseases Research, NMRC
Col	Rouse	Douglas	DHB Executive Secretary/Alternate DFO
Dr.	Sanchez	Justin	Director, BTO, DARPA
RADM	Schwartz	Erica	Chief Medical Officer, U.S. Coast Guard
Dr.	Smith	David	Deputy Assistant Secretary of Defense, Health Readiness Policy and Oversight
COL	Stein	James	Preventive Medicine Staff Officer, Office of the Surgeon General



CDR	Steiner	Shane	Commander, U.S. Public Health Service/U.S. Coast Guard, Chief of Preventive Medicine				
CDR	Torrie	Ian	Canadian Forces Liaison Officer				
Dr.	Ursano	Robert	Professor/Chair, Department of Psychiatry, USUHS				
Dr.	Weber	Douglas	Program Manager, BTO, DARPA				
Ms.	Welsh	Margaret	DHB Management Analyst, Grant Thornton LLP				
	MEDIA & PUBLIC ATTENDEES						
TITLE	LAST NAME	FIRST NAME	ORGANIZATION				
Dr.	Brix	Kelley	Division Director, Research, Development and Acquisition Directorate, DHA				
Mr.	Casterline	Dan	Merck				
Dr.	Collantes	Maria Rochelle	Senior Human Subject Protections Analyst, Hyperion Biotechnology, Inc.				
Ms.	Crowe	Holly	Health Scientist, Clinical Support Division, DHA				
Mr.	Hatch	Michael	National Account Sales Director, GlaxoSmithKline (GSK)				
Ms.	Lasche	Erin	Federal National Account Manager, GSK				
LTC	Palm	Keith	Public Health Staff Officer, Army Office of the Surgeon General/Army Public Health Directorate				
Mr.	Ravitz	Alan	Program Area Manager, Johns Hopkins Applied Physics Laboratory				
Ms.	Sevilla	Nereyda	Health Science Officer/Aerospace Physiologist; Chief Management Official, Air Force Clinical Investigations Program, Office of the Air Force Surgeon General SG5M, Research and Innovations				
Mr.	Syed	Aamir	Senior Manager, Grant Thornton LLP				
Dr.	Tramont	Edmund	Associate Director, Division of Clinical Research, NIAID				
Dr.	Tribble	David	Science Director, IDCRP				
Dr.	Umhau	William	National Security Agency				
Ms.	Uttley	Laura	Lewis-Burke Associates, LLC				

^{*}Participated via telephone.