



National Defense Industrial Association Armed Services Biomedical Research Evaluation and Management

20-22 March 2018

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ASBREM Col Overview

ASBREM ensures the coordinated delivery of innovative and integrated healthcare solutions to our warfighters: enabling optimal readiness and lethality



- Awareness of cross-Component needs
- Joint alignment of biomedical R&D efforts
- Coordinated & complementary use of resources
- Increased interagency collaborations

2017 Highlights

- Completed Integrated DoD Biomedical Research and Development Strategy
- Developed ASBREM Joint Technology Coordinating Groups (JTTCG) Roadmaps aligned to the R&D Strategy



Integrated DoD Biomedical R&D Strategy



Jointly developed strategy enhances coordination to ensure Warfighters are:

Goal 1: Better Prepared: Warfighters are equipped with capabilities and knowledge to optimize their health and achieve peak performance in all mission domains

Goal 2: Better Protected: Warfighters are equipped with capabilities and knowledge to minimize exposure to and consequences of biomedical risks, including infectious diseases, preventable injuries, and other environmental/workplace hazards

Goal 3: Better Cared For: Warfighters are provided with health services that minimize morbidity and mortality and maximize recovery across the treatment continuum; from point of injury, during en route care, to definitive care and rehabilitation

- Guiding Principles: ASBREM's commitments***
- Driving innovation in DoD biomedical research*
 - Maintaining strong biomedical R&D connections to other government agencies, industry, and academia*
 - Coordinating and integrating portfolios across the DoD*
 - Improving resource management and efficiency*





Biomedical R&D Portfolios Joint Technology Coordinating Groups



JTCG-1 BIOMEDICAL INFORMATICS & HEALTH INFO SYSTEMS AND TECHNOLOGY (BI/HIST)

Medical Simulation and Training
Health Information Technology and Informatics
Medical Capabilities to Support Dispersed Operations

JTCG-5 MILITARY OPERATIONAL MEDICINE (MOM)

Environmental Health and Protection
Injury Prevention and Reduction
Physiological Health and Performance
Psychological Health and Resilience
Psychiatry and Clinical Psychology Disorders

JTCG-7 MEDICAL RADIOLOGICAL DEFENSE (MRD)

Hematopoietic ARS Recovery Countermeasures
Assessment of Radiation Injury (Biodosimetry)
Combined Injury: Radiation with Other Insults
Internal Contamination
Low Dose/Dose Rate and Late Effects

JTCG-9 MEDICAL CHEM-BIO DEFENSE (MCBD)

Biological Therapeutics
Chemical Therapeutics
Toxin Therapeutics
Biological Prophylaxis
Chemical Prophylaxis
Toxin Prophylaxis
CB Diagnostics



JTCG-2 MILITARY INFECTIOUS DISEASE (MID)

Parasitic Infectious Disease
Bacterial and Fungal Infectious Disease
Viral Infectious Disease
Vector Control
Diagnostics Systems

JTCG-6 COMBAT CASUALTY CARE (CCC)

Prolonged Field Care
Diagnosis and Treatment of Brain Injury
Devices and Therapeutics for Hemorrhage
Control/Resuscitation/Blood Products
En Route Care
Forward Surgical/Intensive Critical Care
Treatments for Extremity Trauma, Tissue Injury, Cranio-maxillofacial Injury, Lung Injury, and Burns
Military Medical Photonics

JTCG-8 CLINICAL AND REHABILITATIVE MEDICINE (CRM)

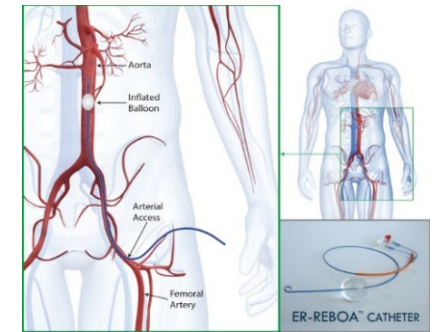
Neuro-musculoskeletal Injury Rehabilitation
Pain Management (Acute/Chronic/Battlefield)
Regenerative Medicine; Hand and Face Transplants
Sensory Systems (Visual, Auditory, and Vestibular)



ASBREM Col Accomplishments

Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA): Technique used in trauma for patients that are rapidly bleeding to death from injuries to their chest, abdomen or pelvis

Sufentanil Nano Tab: Rapidly acting product relieves acute pain with minimal side-effects primarily used during Tactical Field Care and Tactical Evacuation Care



Altitude Readiness Management System (ARMS): First mission composite risk management decision aid that monitors probability and severity of high altitude-induced illness or work performance impairment

Zika Vaccine (ZPIV): Rapid 9 month development from bench to clinical trials

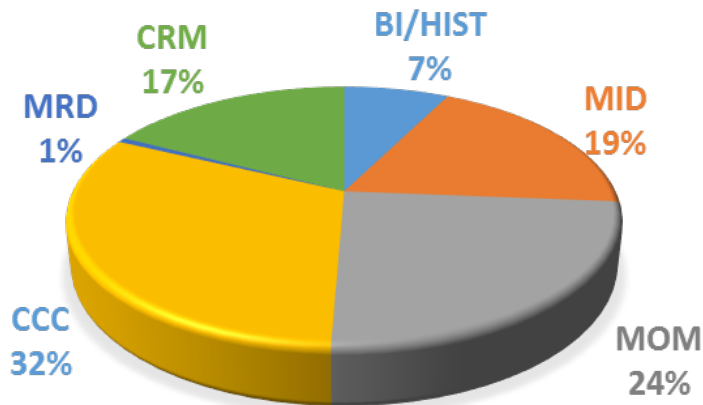
Coordinative Accomplishment: Blood Plasma Summit
Brought together DHA J-4, J-9, Army, Navy, SOCOM, DHP, and BARDA stakeholders to coordinate efforts in blood plasma research and development



Investment Strategy

DoD Medical RDT&E Funding Profile 2017 President's Budget

DoD Biomedical R&D investments are primarily targeted in areas, or for environments, that are militarily unique for which there are limited or no commercial partners or interests



Breakdown by Research Area

- The DoD **leads** in most biomedical research areas: e.g. prolonged field care, en route care, forward surgical/intensive critical care, hemorrhage control and blood products
- The DoD **leverages** in areas where commercial technologies exist and can be tailored for military use: e.g. medical simulation and training, diagnostic systems, pain management, infectious diseases, Health Information Technology
- The DoD **watches** areas of emerging interest: e.g. Medical Radiological Defense and other tech areas like Artificial Intelligence

BI/HIST- Bioinformatics and Health IT	CCC- Combat Casualty Care
MID- Military Infectious Diseases	MRD- Medical Radiological Defense
MOM- Military Operational Medicine	CRM- Clinical Rehabilitative Medicine



Conclusion



Key Areas of Interest

- Novel tools and techniques for prolonged field care and en route care
- Wearable technology for monitoring environmental and occupational threats
- Technologies to enable autonomous medical supply and evacuation
- Secure and reliable IT and engineering support for telehealth/telecare
- Advancing next generation medical device interoperability and security infrastructure
- Validated models for use as clinical tools to guide therapeutic interventions and predict optimal patient outcomes

Engaging industry is key to the success of military medical R&D.

We look forward to engaging with you.