UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND
READINESS

JAN 1 1 2021

The Honorable Richard C. Shelby
Chairman
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The enclosed report is in response to Senate Report 115–290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, on the Joint Warfighter Medical Research Program (JWMRP).

The final report summarizes the projects selected for Fiscal Year (FY) 2019 JWMRP funding, and covers the total congressional appropriations for the JWMRP during this period ($50M). The FY 2019 JWMRP funded 18 projects, aligned under the Science and Technology or Advanced Development project domains, which collectively address the following six Defense Health Program core JWMRP research areas: medical simulation and information sciences, military infectious diseases, military operational medicine, combat casualty care, radiation health effects, and clinical and rehabilitative medicine. These projects reflect a diverse set of JWMRP topics of scientific inquiry intended to enhance and accelerate high-priority DoD and Service medical requirements, with potential to provide significant benefits to military medicine.

Thank you for your continued strong support for our Service members, civilian workforce, and families. I am sending identical letters to the other congressional defense committees.

Sincerely,

//SIGNED//

Matthew P. Donovan

Enclosure:
As stated

UNDER SECRETARY OF DEFENSE
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PERSONNEL AND
READINESS

JAN 1 1 2021

The Honorable Richard J. Durbin
Vice Chairman
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Senator Durbin:

The enclosed report is in response to Senate Report 115–290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, on the Joint Warfighter Medical Research Program (JWMRP).

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PERSONNEL AND
READINESS

The Honorable Peter J. Visclosky
Chairman
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

JAN 1 1 2021

Dear Mr. Chairman:

The enclosed report is in response to Senate Report 115 290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, on the Joint Warfighter Medical Research Program (JWMRP).

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PERSONNEL AND
READINESS

JAN 1 1 2021

The Honorable Ken Calvert
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Senator Calvert:

The enclosed report is in response to Senate Report 115–290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, on the Joint Warfighter Medical Research Program (JWMRP).

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PERSONNEL AND
READINESS

JAN 1 1 2021

The Honorable Adam Smith
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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PERSONNEL AND READINESS

The Honorable William M. "Mac" Thornberry
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

JAN 1 1 2021

Dear Senator Thornberry:

The enclosed report is in response to Senate Report 115–290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, on the Joint Warfighter Medical Research Program (JWMRP).

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PERSONNEL AND
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JAN 1 1 2021

The Honorable James M. Inhofe
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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PERSONNEL AND
READINESS

JAN 1 1 2021

The Honorable Jack Reed
Ranking Member
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Senator Reed:

The enclosed report is in response to Senate Report 115–290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, on the Joint Warfighter Medical Research Program (JWMRP).

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Report to Congress

Joint Warfighter Medical Research Program

January 2021

In Response to: Senate Report 115–290, Page 210, Accompanying S. 3159, the Department of Defense Appropriations Bill, 2019

The estimated cost of this report for the Department of Defense (DoD) is approximately $2,200.00 for Fiscal Years 2019−2020. This includes $700.00 in expenses and $1,400.00 in DoD labor.

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BACKGROUND AND PURPOSE

Senate Report 115–290, page 210, accompanying S. 3159, the Department of Defense (DoD) Appropriations Bill, 2019, requests that the Assistant Secretary of Defense for Health Affairs (ASD(HA)) provide a report on the Joint Warfighter Medical Research Program (JWMRP). Senate Report 115–290 specifies this report should list the projects that receive funding, including the funding amount awarded to each project, a thorough description of each project's research, and the benefit this research will provide to the DoD.

As directed by the Office of the ASD(HA) the Defense Health Agency manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. The U.S. Army Medical Research and Development Command (USAMRDC) provides execution management for the DHP RDT&E JWMRP Congressional Special Interest (CSI) funds.

FISCAL YEAR 2019 JWMRP RESEARCH

Congress appropriated $50 million (M) for the JWMRP in Fiscal Year (FY) 2019, stipulating that these funds "shall be used to augment and accelerate high priority Department of Defense and Service medical requirements and to continue both core and Congressionally-directed prior year initiatives that are close to achieving their objectives and yielding a benefit to military medicine. The funds shall not be used for new projects or basic research." The FY 2019 JWMRP funding supported projects across the following six DHP core research areas: medical simulation and information sciences; military infectious diseases; military operational medicine; combat casualty care; radiation health effects; and clinical and rehabilitative medicine.

Table 1 provides the total number of FY 2019 JWMRP funded projects, including the investment amount per the two project domains: science and technology, and advanced development. The Department allocated the remaining $3,961,422 of the FY 2019 appropriation to Small Business Innovative Research (SBIR)/Small Business Technology Transfer Program (STTR) withholds, as well as program management costs for the USAMRDC and Congressionally Directed Medical Research Programs (CDMRP).

Table 1. FY 2019 JWMRP Funding Summary

PROJECT DOMAINS	PROJECTS FUNDED	JWMRP INVESTMENT
Science and Technology	10	$25,838,773
Advanced Development	8	$20,199,805
Totals	**18**	**$46,038,578**

Primary criteria for selection of the FY 2019 JWMRP project award recipients included (1) whether the project was close to achieving its objectives, and (2) whether it had a clear benefit to military medicine. All selected projects have discrete deliverables that will either advance the anticipated research outcomes or products to the next development phase, resulting in the initiation of a clinical trial, or contribute to requirements to facilitate U.S. Food and Drug Administration (FDA) approval.

Table 2 summarizes the projects funded by the FY 2019 JWMRP, including the research award recipients, project descriptions with explanations of their potential benefits to the DoD, and funded amounts.

Table 2. FY 2019 JWMRP Project Summaries

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
1.	An Interoperable Platform for Real-Time In-Theater Caregiver Decision Support	Massachusetts General Hospital Boston, MA	*Science and Technology* / This research effort focuses on the development of a software system to enhance clinical decision-making in real-time by integrating data from different medical devices used for critically injured patients. The products of this effort are several prototype applications, including clinical applications with the potential to increase clinical assessment efficiency and help medical providers more easily maintain patient situational awareness while in the critical care treatment paradigm. This research will build on efforts to increase medical device interoperability, a vital component in the critical care environment. If successful, this initiative could improve care efficiency and enhance survivability of our wounded or injured Warfighters.	$1,459,971
2.	Development and Validation of the DRAG Humanized Mouse Model for Dengue Virus Infection and Vaccine Evaluation	Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. Bethesda, MD	*Science and Technology* / Dengue viral infections rank second for infectious diseases among our deployed Service members, and if untreated, can lead to the lethal Dengue Hemorrhagic Fever. This study aims to enhance existing understanding of the complex human immune response to dengue viral infections, and the type of immune response needed to protect an individual from this infection. This research will use a small animal model with a human immune response system. Research results will provide a novel animal model for potential pre-clinical assessment of dengue vaccine candidates. Knowledge gained from this research will contribute to dengue vaccine development by laying the foundation for future tests of dengue vaccine candidates. This effort is critical to the DoD in developing a vaccine that can protect our Armed Forces deployed worldwide.	$131,518 (Sent to the Walter Reed Army Institute of Research in support of this effort). $67,000 (Sent to the Naval Medical Research Center in support of this effort).

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
3.	Development of BIO 301 to Prevent Acute Radiation Syndrome and Mitigate the Delayed Effects of Acute Radiation Exposure	Humanetics Corporation Edina, MN	*Science and Technology* / Individuals exposed to high doses of radiation face life-threatening injuries from the effects of acute radiation syndrome. The military and first responders are most at risk of exposure during a nuclear attack or disaster. BIO 301 is a radioprotective agent, genistein, which can prevent the lethality of acute radiation exposure and ameliorate delayed effects of lethal radiation exposure. BIO 301 is under development as a dual-use product for our Armed Forces and as a supportive care drug for patients undergoing radiotherapy. The objective of this effort is to accelerate the development of BIO 301 toward FDA approval under the Animal Rule. The key aims of this project are to demonstrate that BIO 301 can prevent the lethality of high doses of radiation in nonhuman primates, and determine the proper human dose through a clinical trial with healthy human volunteers to establish what various doses of BIO 301 impact drug exposure in human blood. If successful, this drug will enhance force protection capabilities, combat readiness, and operational preparedness in the nuclear/radiological threat environment.	$2,487,102
4.	Integrating Clinical Technology for Military Health: Automating Physiologic Controllers in an Animal ICU as a Platform to Achieve Autonomous Support During Evacuation	DocBox, Inc. Newton, MA	*Advanced Development* / The DocBox platform is a standards-based, secure, point-of-care integrated clinical environment (ICE) that interconnects disparate information technology systems and devices via a shared communications structure. In this product development effort, the developer will work directly with a DoD medical research facility to create applications for the ICE platform, and to extend ICE platform functionality to meet the performance, safety, and security requirements for optimal use in the military environment. The effort focuses on remote monitoring and control on the platform during medical evacuation. These applications will undergo testing to determine how the ICE platform may improve safety and efficiency in patient care management. If successful, this effort will provide technological advancements that will improve patient care and treatment.	$198,806 (Sent to the U.S. Army Institute of Surgical Research in support of this effort).

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
5.	GMP Production and Clinical Trial of a Self-Assembling Protein Nanoparticle and Toll-Like Receptor Liposomal MPL Adjuvanted Malaria Vaccine	Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. Bethesda, MD	*Science and Technology* / Malaria persists as a serious disease threat worldwide. This project's objective is to conduct a Phase 1/2a clinical trial of a nanoparticle malaria vaccine formulated in a liposome-based adjuvant. This project outlines the steps needed to secure the protein and adjuvant components of the proposed vaccine. This effort will combine these two components to form the vaccine FMP-014 for use in a human clinical trial. This effort could lead to a better vaccine that will be more effective in protecting people against malaria and improve the health readiness of our Armed Forces worldwide.	$1,401,049 (Sent to the Walter Reed Army Institute of Research in support of this effort).
6.	Open Medical Gesture: Combat Medic Interactions for VR and Mixed-Reality Tactical Simulations	University of Southern California Playa Vista, CA	*Science and Technology* / This project focuses on creating a completely open source artificial intelligence gesture recognition toolkit to enable military simulation developers to incorporate gesture controls in their applications. This approach will allow individuals to touch and use virtual reality (VR) objects as if in the real world. The system will include a built-in library of gestures for object manipulation, environment manipulation, as well as medical examination and interventions. Specific aims will include (1) refining the software development kit (SDK) for the universal gesture interface OpenMG 1.5; (2) creating the SDK for the next generation OpenMG 2.0; conducting OpenMG outreach and dissemination; (4) developing documentation and support videos; and (5) evaluating and demonstrating a sample military simulation application.	$2,803,795
7.	IND-Enablement of Kinocidin Gamma-RP-1 for MDR Gram-Negative Infections	Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center Torrance, CA	*Science and Technology* / Infections due to multidrug-resistant (MDR) *Acinetobacter baumannii* and other MDR Gram-negative bacterial pathogens pose perhaps the greatest infectious disease threat to U.S. military personnel following combat wounds, injuries, burns, and other severe trauma. Additional risks arise due to organisms resistant to most, if not all, existing antibiotics. This program intends to accelerate the pre-clinical development of a novel kinocidin, γ-RP-1 anti-infective, modeled upon unique host defense kinocidins and uniquely deployed into the human bloodstream. In contrast to classical antimicrobial peptides limited by pharmacologic and toxicity issues, kinocidins exert potent and durable anti-infective efficacy in human blood matrices with minimal detectable toxicity. Scale-up process and production of γ-RP-1, and evaluation of γ-RP-1 in Investigational New Drug-enabling efficacy, pharmacologic, and toxicology studies will support rapid translation and advancement of this novel kinocidin to clinical trials.	$4,423,425

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
8.	Correlation of Laboratory-Based Hearing Protection Evaluation Methods with Human Performance	Applied Research Associates, Inc. Littleton, CO	*Science and Technology*/ Communications and situational awareness are critical force multipliers in the modern battlefield, where modern weapon systems and vehicles present more hazards to hearing than ever before. There is an incredible burden on unit commanders and planners to ensure their Soldiers are equipped with optimal protection for their mission. Applied Research Associates, Inc. has developed electromechanical test methods, test apparatus, and metrics for complex performance characterization and comparison of hearing protection devices (HPDs). This study focuses on verifying these test methods through human subject testing. Specific aims include (1) evaluation of human subject performance when using relevant military HPDs; (2) refinement and formal verification of electromechanical test measures for evaluation of HPDs to support standards development; and (3) development of a software tool for Warfighters to optimize HPD selection to support specific mission profiles. By enabling rapid and efficient evaluation of military HPDs, this tool will enhance force lethality on the battlefield.	$3,889,251
9.	Multicenter Implementation Trial of Targeted Normoxia Strategy to Define Oxygen Requirements for Combat Casualty Care	University of Colorado at Denver Aurora, CO	*Science and Technology* / Oxygen therapy has undisputed importance in combat casualty care for the treatment and prevention of hypoxia-associated morbidity. However, generous supplemental oxygen, although routine, often results in hyperoxia, which can increase morbidity and mortality. This effort focuses on determining the feasibility, safety, and clinical effectiveness of a targeted normoxia approach in comparison to conventional oxygenation, through a multi-center, randomized trial among adult emergency department trauma patients. Study findings will provide immediately actionable data to define oxygenation practices for critically injured warfighters and civilians, and will aid in clinical practice guideline development, as well as optimization of patient outcomes, while conserving oxygen supplies in deployed combat settings.	$3,796,345 $9,840 (Sent to the U.S. Army Institute of Surgical Research in support of this effort).

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
10.	Preclinical Development of a Novel Medical Device for Total Meniscus Reconstruction	Rutgers University New Brunswick, NJ	*Science and Technology* / Military Health System providers perform an estimated 20,000 meniscectomies annually, compared to 800,000 performed in the general population. Meniscal tears occur approximately ten times more frequently in the military than in the civilian population, which negatively affects readiness and resilience, and increases the cost of care. The goal of this project is to accelerate FDA approval and commercialization of MeniscoFix™, a total meniscus replacement device that gradually resorbs and promotes neo-meniscus formation, potentially restoring the mobility of active military personnel and preventing onset of degenerative post-traumatic osteoarthritis (PTOA) associated with meniscus injuries. This study will focus on creating a repeatable process for the manufacture of MeniscoFix™ devices for subsequent pre-clinical testing; performing safety and efficacy testing; and submitting an Investigational Device Exemption application to the FDA to enable first-in-human clinical trials. Commercialization of MeniscoFix™ has potential to accelerate return to duty and, in the long-term, prevent development of PTOA associated with meniscectomy, resulting in improved quality of life and significant health cost savings.	$2,174,189
11.	Anticeramide scFv as Prophylaxis of the Radiation GI Syndrome	Ceramedix Holding, LLC New York, NY	*Science and Technology* / The purpose of this effort is to further develop Ceramedix LLC's anti-ceramide humanized 6B5 (h6B5) single-chain variable fragment (scFv) antibody as a radiation protector. This effort will enable the DoD and Department of Health and Human Services to acquire 6B5 scFv for inclusion in the Strategic National Stockpile/Vendor Managed Inventory, for prophylactic use by military and first responders. Specific aims are (1) cGMP manufacturing of h6B5 anti-ceramide scFv; (2) optimizing h6B5 scFv scheduling and dosing in a murine model of gastrointestinal-acute radiation syndrome (GI-ARS); (3) testing the efficacy of h6B5 scFv in a non-human primate model of GI-ARS; (4) conducting safety/toxicity assessments of h6B5 scFv; and (5) conducting a Phase 1a clinical trial of h6B5 scFv in normal healthy volunteers.	$3,195,288

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
12.	Development of F-18-Labeled Radiotracers for PET Imaging of Brain Alpha1A Adrenoreceptor: A Tool for Precision Medicine in PTSD	Seattle Institute for Biomedical and Clinical Research Seattle, WA	*Advanced Development* / This project focuses on the development of an alpha-1A adrenoceptor positron emission tomography (PET) radiotracer compound, and a PET-based assay for *in-vivo* screening of potential therapeutics to regulate noradrenergic stress-response systems in the human brain. The project's specific aims are to (1) develop a novel fluorine-18–labeled radiotracer for alpha-1A adrenoceptors; (2) assess *in-vitro* and *in-vivo* characteristics of the novel candidate radiotracers through expedited translational studies necessary before human use; (3) measure alpha-1A adrenoceptor availability in healthy human brains and determine safety and expected radiation exposure of the novel radiotracer; and (4) measure alpha-1A adrenoceptor availability as a biomarker of posttraumatic stress disorder (PTSD) in veterans and recently separated Service members, as well as measure receptor occupancy with prazosin at clinically responsive doses to facilitate future drug development.	$4,499,999
13.	Interoperable and Compact Infusion Pump Module for the Delivery of Drugs, Fluids, and Blood Products at the Point of Injury and for En Route	NeuroWave Systems, Inc. Cleveland Heights, OH	*Advanced Development* / This project entails continued development of a volumetric infusion pump, AccuPump, for en route care. The project's specific aims are to (1) demonstrate the hemocompatibility/ biocompatibility of the administration set; (2) develop user interface software following FDA Major Level of Concern requirements; (3) demonstrate that user errors do not lead to unacceptable risks; and (4) submit and support a 510(k) application containing all evidence data supporting a safety claim.	$3,348,000 (Sent to the Naval Medical Research Center, Naval Advanced Development for support of this effort).
14.	Bacteriophage for Treatment of Bacterial Infections (BTBI)	Armata Pharmaceuticals, Inc. Marina del Rey, CA	*Advanced Development* / This effort focuses on the development of AP-SA01, a novel bacteriophage therapeutic for targeted treatment of *Staphylococcus aureus* (*S. aureus*) bacteremia. This funded study aims to manufacture and demonstrate the safety and efficacy of AP-SA01 in a Phase 1/2 clinical trial of patients with *S. aureus* bacteremia, including drug-resistant forms. This acceleration effort of an existing Navy contract with the awardee will be a part of the BTBI multiple prototype development acquisition strategies that use defined FDA-reviewed clinical trials to support the Biologics License Application of this bacteriophage-based therapeutic.	$6,654,000 (Sent to the Naval Medical Research Center, Naval Advanced Development to put on an existing contract for this effort).

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
15.	Casualty Recovery Locator Beacon	Special Purpose Processor Development Group, Mayo Clinic Rochester, MN	*Advanced Development* / Navy operations at sea may result in man overboard scenarios requiring personnel recovery and medical treatment. Current fielded technologies do not allow rapid geolocation and health status assessment. Thus, a requirement exists for remote and autonomous health status monitoring abilities to prioritize casualties (triage) and geo-locate overboard casualties for recovery. The Casualty Recovery Locator Beacon fills this capability gap, allowing autonomous and rapid optimization of personnel recovery efforts, based on health status to increase survivability rates. This acceleration effort of an existing Navy contract with the awardee focuses on technical maturation and demonstration of a government-owned, modular communication package with physiological health status and geolocation capability. It includes prototype evaluations to reduce development risk and accelerate its future transition to the Office of the Chief of Naval Operations.	$800,000 (Sent to the Naval Medical Research Center, Naval Advanced Development to put on an existing contract for this effort).
16.	Seal Integrative Monitoring System (SIMS)	Special Purpose Processor Development Group, Mayo Clinic Rochester, MN	*Advanced Development* / The Naval Special Warfare (NSW), Seal Delivery Vehicle Team 1 (SDVT-1) requires the ability to collect quality quantitative physiological performance metrics in operational settings using biomedical devices that are secure and ruggedized. The SIMS provides a government-owned, flexible, scalable, dive-able, tactical biomedical wearable platform for demonstrating human performance improvements in-theater and increasing warfighting capabilities. This acceleration effort of an existing Navy contract with the awardee focuses on technical maturation and demonstration of SIMS for NSW SDVT-1, including prototype evaluations to reduce development risk and accelerate its future transition to the Naval Special Warfare Command.	$2,500,000 (Sent to the Naval Medical Research Center, Naval Advanced Development to put on an existing contract for this effort).

NO.	PROJECT TITLE	RECIPIENT	PROJECT DESCRIPTION AND DoD BENEFIT	JWMRP FUNDING AMOUNT
17.	Ultrasound for Assessing Critical Head Trauma	UltraDiagnostics, Inc. Saint Augustine, FL	*Advanced Development* / Moderate to severe traumatic brain injury (TBI) is a leading cause of death and disability among Service Members injured in combat. Optimal treatment of severe TBI from point of injury to the hospital demonstrated increased survival. A capability that provides field medical personnel with data indicative of who requires treatment and when the treatment will be beneficial would improve moderate to severe TBI outcomes for Service members. Previous work led to development of transcranial ultrasound imaging to detect abnormal structures including hemorrhage, midline shift, and foreign objects. This acceleration effort of an existing Army contract under the Traumatic Brain Injury: Triage Device product development effort will allow further development and end-user testing of the device at military medical treatment facilities to determine the feasibility and alignment of this novel technology with user needs. Technical aims include completion of hardware and software upgrades, and development of a commercial prototype for safety and clinical testing toward FDA clearance, with the ultimate goal of allowing more rapid first responder assessment and triage of injured Warfighters with non-penetrating moderate and severe TBI.	$1,300,000 (Sent to the U.S. Army Medical Materiel Development Activity to put on an existing contract for this effort).
18.	Temporary Corneal Repair (TCR)	Ashvattha Therapeutics, LLC Redwood City, CA	*Advanced Development* / Treatment of severe eye injuries must occur within 24-36 hours, or vision will be permanently lost. Non-superficial military eye injuries or blindness cost an estimated $4.7 billion during Operation IRAQI FREEDOM and Operation ENDURING FREEDOM. The TCR effort focuses on the development of a novel product for temporary closure of severe penetrating eye injuries, thus stabilizing the eye until permanent surgical repair and restoration of vision. This funding supports the manufacture of the filler gel and bioadhesive product components for testing, Good Laboratory Practices toxicology studies, and submission of an Investigational Device Exemption to the FDA. This acceleration effort of an existing Army contract with the awardee will be part of the TCR multiple prototype development acquisition strategy, advancing the product through Phase 2 clinical trials.	$899,000 (Sent to the U.S. Army Medical Materiel Development Activity to put on an existing contract for this effort).

SUMMARY

Congressional appropriations for the FY 2019 JWMRP totaled $50M, of which the DHP JWMRP CSI invested approximately $46M in research, after final USAMRDC and CDMRP management costs and SBIR/STTR withholds. The FY 2019 JWMRP funded 18 projects. These projects, each aligned under the Science and Technology or Advanced Development project domains, collectively address the following six DHP core JWMRP research areas: medical simulation and information sciences; military infectious diseases; military operational medicine; combat casualty care; radiation health effects; and clinical and rehabilitative medicine. These projects reflect a diverse set of JWMRP topics of scientific inquiry intended to enhance and accelerate high-priority DoD and Service medical requirements, with potential to provide significant benefits to military medicine.