



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

PERSONNEL AND  
READINESS

**AUG 25 2022**

The Honorable Jon Tester  
Chairman  
Subcommittee on Defense  
Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

The Department's response to Senate Report 116-103, page 236, accompanying S. 2474, the Department of Defense Appropriations Bill, 2020, "Traumatic Brain Injury/Psychological Health," is enclosed.

The report covers Fiscal Year (FY) 2020 congressional appropriations for traumatic brain injury (TBI)/psychological health (PH) (\$165M), and summarizes the FY 2020 TBI/PH Congressional Special Interest (CSI) expenditures, including the TBI/PH CSI-funded projects across four Defense Health Program core research areas: Battlefield TBI and Neurotrauma; Complex TBI Rehabilitation; Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury; and PH and Resilience. The Department of Defense continues to support research in the prevention, detection, diagnosis, treatment, and rehabilitation of TBI and PH issues through various agreements with Government organizations, as well as academic, non-profit, and other civilian research institutions, with the ultimate goal to improve preventative and management strategies for TBI and associated PH issues in the military and civilian populations.

Thank you for your continued strong support for the health and well-being of our Service members, veterans, and families. I am sending similar letters to the other congressional defense committees.

Sincerely,

A handwritten signature in black ink, appearing to read "Gilbert R. Cisneros, Jr.", written in a cursive style.

Gilbert R. Cisneros, Jr.

Enclosure:  
As stated

cc:  
The Honorable Richard C. Shelby  
Vice Chairman



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

**PERSONNEL AND  
READINESS**

**AUG 25 2022**

The Honorable Betty McCollum  
Chair  
Subcommittee on Defense  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Madam Chair:

The Department's response to Senate Report 116-103, page 236, accompanying S. 2474, the Department of Defense Appropriations Bill, 2020, "Traumatic Brain Injury/Psychological Health," is enclosed.

The report covers Fiscal Year (FY) 2020 congressional appropriations for traumatic brain injury (TBI)/psychological health (PH) (\$165M), and summarizes the FY 2020 TBI/PH Congressional Special Interest (CSI) expenditures, including the TBI/PH CSI-funded projects across four Defense Health Program core research areas: Battlefield TBI and Neurotrauma; Complex TBI Rehabilitation; Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury; and PH and Resilience. The Department of Defense continues to support research in the prevention, detection, diagnosis, treatment, and rehabilitation of TBI and PH issues through various agreements with Government organizations, as well as academic, non-profit, and other civilian research institutions, with the ultimate goal to improve preventative and management strategies for TBI and associated PH issues in the military and civilian populations.

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Enclosure:  
As stated

cc:  
The Honorable Ken Calvert  
Ranking Member



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

PERSONNEL AND  
READINESS

AUG 25 2022

The Honorable Jack Reed  
Chairman  
Committee on Armed Services  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

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As stated

cc:  
The Honorable James M. Inhofe  
Ranking Member





PERSONNEL AND  
READINESS

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

**AUG 25 2022**

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

Dear Mr. Chairman:

The Department's response to Senate Report 116-103, page 236, accompanying S. 2474, the Department of Defense Appropriations Bill, 2020, "Traumatic Brain Injury/Psychological Health," is enclosed.

The report covers Fiscal Year (FY) 2020 congressional appropriations for Traumatic Brain Injury (TBI)/Psychological Health (PH) (\$165M), and summarizes the FY 2020 TBI/PH Congressional Special Interest (CSI) expenditures, including the TBI/PH CSI-funded projects across four Defense Health Program core research areas: Battlefield TBI and Neurotrauma; Complex TBI Rehabilitation; Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury; and PH and Resilience. The Department of Defense continues to support research in the prevention, detection, diagnosis, treatment, and rehabilitation of TBI and PH issues through various agreements with Government organizations, as well as academic, non-profit, and other civilian research institutions, with the ultimate goal to improve preventative and management strategies for TBI and associated PH issues in the military and civilian populations.

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Enclosure:  
As stated

cc:  
The Honorable Mike D. Rogers  
Ranking Member

# Report to Congressional Defense Committees



**In Response to: Senate Report 116–103, Page 236, Accompanying S. 2474, the Department of Defense Appropriations Bill, 2020, “Traumatic Brain Injury/Psychological Health”**

**August 2022**

The estimated cost of this report for the Department of Defense (DoD) is approximately \$1,000.00 for Fiscal Year 2020. This includes \$200.00 in expenses and \$800.00 in DoD labor.

Generated on November 2, 2021

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## PURPOSE

This report is in response to Senate Report 116–103, page 236, accompanying S. 2474, the Department of Defense Appropriations Bill, 2020, “Traumatic Brain Injury/Psychological Health,” which requests the Assistant Secretary of Defense for Health Affairs (ASD(HA)) to submit a report to the congressional defense committees on expenditure and obligation data of additional funding added by Congress for psychological health (PH) and traumatic brain injury (TBI), including information on agreements made with other Government agencies.

As directed by the Office of the Assistant Secretary of Defense for Health Affairs (OASD(HA)), the Defense Health Agency (DHA) manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation, to include the TBI/PH Congressional Special Interest (CSI) funds. The U.S. Army Medical Research and Development Command (USAMRDC) provides execution management for the DHP RDT&E TBI/PH CSI funds. From Fiscal Year (FY) 2009–FY 2020, PH/TBI Research Program (PH/TBIRP) appropriations were managed by USAMRDC-based research program areas with strategic alignment to OASD(HA) and DHA. The DoD Congressionally Directed Medical Research Programs (CDMRP) provided program and award management support as requested during this time. Additional information on the PH/TBIRP can be found here: <https://cdmrp.army.mil/phtbi/default>. For FY 2021, CDMRP was assigned to manage the Peer-Reviewed PH and TBIRP congressionally-directed appropriation.

## FY 2020 DHP TBI/PH CSI EXPENDITURES

Toward the goal of developing improved preventative and management strategies for TBI and associated PH issues in both the military and civilian populations, DoD continues to support relevant research into the prevention, detection, diagnosis, treatment, and rehabilitation of TBI and PH.

Table 1 summarizes the FY 2020 TBI/PH CSI expenditures by category. Table 2 provides a list of FY 2020 DHP TBI/PH CSI research investments, including agreements made with other Government agencies.

**Table 1. FY 2020 TBI/PH CSI Expenditures Summary**

<b>FY 2020 TBI/PH Congressional Appropriation</b>	<b>\$165,000,000</b>
<b>Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Withholds</b>	<b>\$2,654,000</b>
<b>Management Costs</b>	<b>\$7,639,804</b>
<b>Research*</b>	<b>\$154,706,196</b>

*\*See Table 2 for additional information on the research projects.*

**Table 2. FY 2020 TBI/PH CSI Research Investments**

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Battlefield TBI and Neurotrauma	3D Models of the Blood-Brain Barrier for Studying Trauma-Induced Cerebral and Systemic Injuries	University of Washington	\$793,986
Battlefield TBI and Neurotrauma	A New 'Medical Record for the Brain' Enabling Precision Management of TBI	Moberg Research, Inc.	\$1,500,000
Battlefield TBI and Neurotrauma	A Phase 1, Randomized, Double-Blind, Placebo-Controlled, Multiple-Ascending-Dose Trial to Evaluate the Safety, Tolerability, Immunogenicity, and Pharmacokinetics of Intravenous PNT001 in Hospitalized Patients with Acute Traumatic Brain Injury	Pinteon Therapeutics	\$3,168,000
Battlefield TBI and Neurotrauma	A Vascularized Micro-Organ Platform for the Study of Brain—Blood-Brain Barrier (BBB)—Blood Interaction	University of California, Irvine	\$752,638
Battlefield TBI and Neurotrauma	Advancing Artificial Intelligence (AI) Toward Precision Medicine in Traumatic Brain Injury: A Collaboration by DHA, Department of Energy, TRACK-TBI, and the CARE Consortium**	Medical College of Wisconsin	\$2,368,105
Battlefield TBI and Neurotrauma	Biomarker-Based Precision Medicine Approach to Traumatic Brain Injury Subphenotypes	SUNY Downstate Medical Center	\$1,436,383
Battlefield TBI and Neurotrauma	Biomarkers for Detection and Treatment of Traumatic Brain Injury	Los Alamos National Laboratory**	\$501,201



<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Battlefield TBI and Neurotrauma	BurRapid™ Intracranial Pressure Monitor Attachment for Traumatic Brain Injury	Critical Innovations, LLC	\$1,553,334
Battlefield TBI and Neurotrauma	Characterizing Potential Chronic Brain Health Effects of Concussion and Repetitive Head Impact Exposure: The CARE-SALTOS Integrated Study	Indiana University	\$23,451,097
Battlefield TBI and Neurotrauma	Cilia as a Biomarker of Central Nervous System Vascular Health	Medical College of Wisconsin	\$774,191
Battlefield TBI and Neurotrauma	Clinical Investigation of CMX-2043 for the Acute Treatment of Traumatic Brain Injury	Ischemix, LLC	\$3,100,710
Battlefield TBI and Neurotrauma	Clinical Phase 1 Development of Battlefield TBI Therapeutic AST-004	Astrocyte Pharmaceuticals, Inc.	\$3,135,374
Battlefield TBI and Neurotrauma	Developing an Acute Traumatic Brain Injury Therapy to Protect Axons and Prevent White Matter Neurodegeneration	Uniformed Services University of the Health Sciences; Henry M. Jackson Foundation	\$1,080,969
Battlefield TBI and Neurotrauma	Development of CN-105, a Novel Neuroprotective Peptide, for Treatment of Traumatic Brain Injury	AegisCN, LLC	\$872,698
Battlefield TBI and Neurotrauma	Individualized Medicine in a Gyrencephalic Model of TBI Polytrauma Through the Continuum of Care	Naval Medical Research Center; Uniformed Services University of the Health Sciences	\$1,269,000
Battlefield TBI and Neurotrauma	Intracranial Pressure Assessment and Screening System (IPASS): A Portable Device for Non-Invasive Monitoring of Intracranial Pressure (ICP) in Traumatic Brain Injury	Vivonics, Inc.	\$2,830,947



<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Battlefield TBI and Neurotrauma	Long-Term Impact of Military-Relevant Brain Injury Consortium (LIMBIC) Award**	Virginia Commonwealth University; Fort Belvoir; Walter Reed National Military Medical Center; Dwight D. Eisenhower Army Medical Center	\$8,219,484
Battlefield TBI and Neurotrauma	Non-Invasive Monitoring of Traumatic Brain Injury Progression using the Infrascanner (MOBI-1)	University of Alabama at Birmingham	\$2,348,883
Battlefield TBI and Neurotrauma	Precision Intracranial Bleed Triage and Monitoring	Neural Analytics	\$1,470,073
Battlefield TBI and Neurotrauma	Role-1 Traumatic Brain Injury Evaluation Using Low-Power Radio Frequency	Sense Diagnostics, Inc.	\$2,588,852
Battlefield TBI and Neurotrauma	The $\mu$ SiM-hNVU – A Human Blood-Brain Barrier (BBB) Platform for the Study of Brain Injury Mechanisms During Systemic Infection	University of Rochester	\$729,312
Battlefield TBI and Neurotrauma	The Development of Best Practice Penetrating TBI Guidelines for Military and Civilian Patients	Henry M. Jackson Foundation	\$1,037,932
Battlefield TBI and Neurotrauma	TRACK-TBI Precision Medicine – Pathomechanistic Classification of Traumatic Brain Injury: The Bridge to Targeted Therapies	Walter Reed National Military Medical Center	\$2,250
Battlefield TBI and Neurotrauma	Trajectories of Insomnia and Impact on Recovery Following Traumatic Brain Injury	Walter Reed Army Institute of Research	\$45,518
Battlefield TBI and Neurotrauma	UCSF/USUHS Partnership to Develop Tau Prion Therapeutics for Chronic Traumatic Encephalopathy	Uniformed Services University of the Health Sciences; University of California, San Francisco	\$7,050,000

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Battlefield TBI and Neurotrauma	Warfighter Brain Health Initiative: Brain Tissue Repository	Uniformed Services University of the Health Sciences	\$2,700,000
Complex TBI Rehabilitation	Identifying Objective Multimodal Predictors of Military/Operational Readiness and Recovery in Mild TBI Rehabilitation	Naval Health Research Center	\$342,000
Complex TBI Rehabilitation	INVENT VPT Trial: Incremental Velocity Error as a New Treatment in Vestibular Rehabilitation	Walter Reed National Military Medical Center	\$1,500
Complex TBI Rehabilitation	Objective Dual-Task Turning Measures for Return-to-Duty Assessment	Fort Sam Houston; Madigan Army Medical Center	\$119,023
Complex TBI Rehabilitation	The Use of Mobile Visual and Auditory Technologies to Implement Augmented Reality Tasks for Vestibular Physical Therapy	Naval Health Research Center	\$50,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	An Epidemiological Investigation of Effects of Repeated, Low-Level Blast Exposure on Military Career Outcomes	Naval Health Research Center	\$202,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Artificial Intelligence and Pattern Recognition for Risk Prediction	Army Research Laboratory	\$510,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Behind Helmet Blunt Trauma – Army Combat Helmet Damage Reconstruction	U.S. Army Aeromedical Research Laboratory; Army Research Laboratory	\$688,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Behind Helmet Blunt Trauma – Program to Develop Injury Risk Criteria for Next Generation Helmet	U.S. Army Aeromedical Research Laboratory	\$250,000

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Blast Load Assessment – Sense and Test (BLAST) Injury Prediction Algorithm	Office of Naval Research (executed by Applied Research Associates)	\$940,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Blast Overpressure Health Hazard Assessment Methodology Validation and Injury Model Updates	U.S. Army Public Health Center	\$564,577
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Blast Overpressure Study – Surveillance (BOS-S)	Walter Reed Army Institute of Research; Walter Reed National Military Medical Center; OASD(HA), Health Readiness Policy and Oversight	\$1,170,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Combat and Training Queryable Exposure/Event Repository (CONQUER) <i>(Study in Response to Section 734 of the National Defense Authorization Act for Fiscal Year 2018)</i>	Uniformed Services University of the Health Sciences	\$10,000,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Data Repository Development and Toolset Integration for Blast Characterization	Army Research Laboratory	\$500,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Deployed Naval Shipboard Personalized Sleep Monitoring for Maintenance of Health and Readiness	Naval Health Research Center	\$750,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Digital Comprehensive Operator Readiness Assessment (DigiCORA)	Naval Health Research Center; University of Southern California	\$4,866,000

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Ellie 2.0/Neurocognitive Testing and Stress Monitoring/EMPOWER	Army Research Laboratory	\$850,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Environmental Sensors in Training (ESiT)	Walter Reed Army Institute of Research	\$1,400,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Experienced Artillery Study	University of Virginia; Navy Medical Research Center	\$716,800
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Fast Automated Signal Transformation for Combat Training	Army Research Laboratory; Medical Technology Enterprise Consortium	\$549,680
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Fast Running CoBi-Blast Tools for Warfighter Monitoring and Protection in Military Heavy Weapon Training	CFD Research Corp	\$450,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Improving Numerical Models of Blast Effects on Soldiers Through Efficient Model	Army Research Laboratory	\$492,500
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Injury and Blast Overpressure Health Hazard Assessment Software Training	Medical Technology Enterprise Consortium/ Advanced Technology International	\$15,038
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Investigating the Neurologic Effects of Training Associated Blast (I-TAB)	Uniformed Services University of the Health Sciences	\$404,000



<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Investigation of Blood-Based Biological Markers for Blast Dosimetry	Walter Reed Army Institute of Research	\$175,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Marksmanship Platform Assessment of Blast Exposure Effects on Performance: Enhancing Military Relevance of Current Research	Naval Health Research Center; Walter Reed Army Institute of Research	\$579,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Medical Cost Avoidance Model (MCAM) – Verification, Validation, and Accreditation (VV&A)	U.S. Army Public Health Center	\$92,392
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	MITRE ( <i>Study in Response to Section 734 of the National Defense Authorization Act for Fiscal Year 2018</i> )	DHA	\$4,932,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Neuropathology of High-Impact Blunt TBI in the Gyrencephalic Brain	Uniformed Services University of the Health Sciences; Johns Hopkins University School of Medicine	\$533,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Repeated Low Level Blast Exposure (RLLBE)	Navy Medical Center - Camp Lejeune	\$253,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Service Member Occupational Health Assessments	U.S. Army Public Health Center	\$589,920
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	The Impact of Blast Exposure on Functional Impairments in Hearing and Cognition	Walter Reed National Military Medical Center	\$500,000

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	The Study to Assess Risk and Resilience in Service Members Longitudinal Study	Headquarters Department of the Army, Assistant Secretary of the Army (Manpower and Reserve Affairs)	\$898,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Translational Technologies for Detection and Restoration of Glymphatic Flow	Rice University	\$2,998,718
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Using a Computerized Evaluative Conditioning App to Enhance Marital Well-Being	Florida State University	\$869,484
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Validation of the Blast Test Device (BTD) and Test Operating Procedures (TOP)	Army Aberdeen Test Center	\$475,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Validation of the Repeated Blast Exposure Algorithm with a Large Animal Model	Walter Reed Army Institute of Research	\$129,000
Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury	Wearable Sensor Validation and Blast Overpressure Prediction for Weapon Systems (Environmental Sensors in Training [ESiT])	Army Aberdeen Test Center; Army Research Laboratory	\$904,000
PH and Resilience	Adjustment Disorders in the U.S. Military: Addressing Gaps in Knowledge and Practice	Henry M. Jackson Foundation; Uniformed Services University of the Health Sciences	\$739,403
PH and Resilience	Analysis of Millennium Cohort (MILCO) Samples	Walter Reed Army Institute of Research	\$200,000
PH and Resilience	Assessing Immune Fitness for Maximal Force Readiness through HLA-TCR Profiling	Walter Reed Army Institute of Research	\$254,346

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
PH and Resilience	Augmentation of the Personal Assistance for Life Long Learning (PALS3) Acceleration Initiative Using a Cognitive Technology	Air Force Research Laboratory	\$475,000
PH and Resilience	Augmented Neurophysiology of Sleep and Performance Readiness	University of North Carolina, Chapel Hill	\$4,489,907
PH and Resilience	Better Together: A Primary Prevention Intervention Targeting Transdiagnostic Interpersonal Emotion Regulation Among Military Couples	Henry M. Jackson Foundation	\$1,475,868
PH and Resilience	Comprehensive Assessment of Blast-Induced Traumatic Brain Injury in a Gyrencephalic Species: Biomechanical, MRI, Behavioral, and Pathological Characterizations	Geneva Foundation; Walter Reed Army Institute of Research	\$2,796,696
PH and Resilience	Cross-cutting Prevention Through an Upstream Focus on Social Determinants of Health Within Military Settings	Arizona State University	\$2,526,984
PH and Resilience	Elucidating and Quantifying the Response of Down-Regulation Techniques on Physical and Cognitive Stress	Mayo Clinic	\$1,114,582
PH and Resilience	Enhanced Access, Acknowledge, Act at United States Air Force Academy: Intervention with the Fourth Degree Classes of Cadets	Air Force Research Laboratory	\$509,452

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
PH and Resilience	Enhancing Utility and Evaluating Cross-Cutting Outcomes of the Sexual Communication and Consent (SCC) Program	RTI International	\$2,013,811
PH and Resilience	Impacts of Disinformation Campaigns on Service member Psychological Health and Morale	Walter Reed Army Institute of Research	\$300,000
PH and Resilience	Improving Family Readiness Through Primary Care Behavioral Health	Uniformed Services University of the Health Sciences	\$332,000
PH and Resilience	Improving Sleep Health to Mitigate Negative Effects of Deployment on the Psychological Health of Active Duty Service Members	Naval Health Research Center	\$287,000
PH and Resilience	Integrating Social Networks and Team Intervention Approaches to Reduce Ostracism in the Military	University of Kentucky Research Foundation	\$1,950,764
PH and Resilience	Lesbian, Gay, and Bisexual Couples in the Military: A Post-DADT Examination of Relationship Health, Perceived Community Acceptance, and Mission Readiness	Wright State University	\$117,079
PH and Resilience	Long-term Consequences of Mothers and Fathers Wartime Deployments	Naval Health Research Center; Purdue University	\$1,371,673
PH and Resilience	Maintenance and Expansion of the Marine Recruit Assessment Program	Naval Health Research Center	\$2,061,000
PH and Resilience	Management of Post-Traumatic Stress Disorder Using Novel Audio-Visual Stimulation Device	Sana Health, Inc.	\$539,289



<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
PH and Resilience	Multi-Mode Study of Stellate Ganglion Block for Treating Symptoms of PTSD	Research Triangle Institute, Inc.	\$4,050,560
PH and Resilience	Owl Fatigue Meter to Support Fatigue Risk Management on Navy Surface Warfare Platforms	Pulsar Informatics, Inc.	\$2,404,755
PH and Resilience	Personalized Web-Based Sexual Assault Prevention for Service Members	Rhode Island Hospital	\$258,367
PH and Resilience	Pilot Trial of Nightmare Deconstruction and Reprocessing, a Novel Treatment for PTSD-Related Nightmares and Insomnia	Uniformed Services University of the Health Sciences	\$101,000
PH and Resilience	Post-Concussion Neuromuscular Function and Musculoskeletal Injury Risk	Uniformed Services University of the Health Sciences	\$1,347,000
PH and Resilience	Preventing and Managing Moral Injury in Warfighters	Walter Reed Army Institute of Research	\$25,000
PH and Resilience	Preventing Firearm Suicide: Effect of a Military Health System Intervention for Clinician Training and Linkage to Community Firearm Retailers	Air Force 711 <sup>th</sup>	\$700,000
PH and Resilience	Preventing Sexual Violence Toward Male Victims Through Targeting Hazing Behavior	Womack Army Medical Center	\$20,000
PH and Resilience	Protective Environments: Military Community Engagement to Prevent Firearm-Related Violence	University of Colorado Anschutz Medical Campus	\$1,563,091

<b>Research Area</b>	<b>Title</b>	<b>Organization(s)</b>	<b>FY 2020 Investment</b>
PH and Resilience	Psychological Predictors of Early Career Success in Junior Officers in the Nuclear and Submarine Pipelines	Naval Submarine Medical Research Laboratory	\$235,000
PH and Resilience	Sexual Assault Prevention for Men in the Military	Rhode Island Hospital	\$70,000
PH and Resilience	Sleep Disorders in Military Personnel: Identifying Causal Factors and the Impact of Treatment on Psychological Health and Resilience	Wilford Hall Medical Center	\$199,000
PH and Resilience	Systems Biology – Diagnostic (PTSD)	Walter Reed Army Institute of Research	\$1,500,000
PH and Resilience	Systems Biology – Subtyping (PTSD)	Walter Reed Army Institute of Research	\$1,500,000
PH and Resilience	Trauma-Informed Guilt (TriGR) Intervention	Veterans Medical Research Foundation of San Diego	\$269,000
PH and Resilience	Testing Two Interventions to Improve the Comfort and Skill of Mental Health Care	Naval Health Research Center	\$101,000
PH and Resilience	Up-Armoring At Risk Military Couples: A Stepped Approach to Early Intervention and Strengthening of Military Families	81 <sup>st</sup> Keesler Air Force Base	\$1,214,000
PH and Resilience	Using Artificial Intelligence and Technology to Detect and Prevent Behavioral Health Issues including Suicide	Massachusetts Institute of Technology Lincoln Laboratory; Walter Reed Army Institute of Research	\$400,000
PH and Resilience	Vocal Analysis for PTSD	Massachusetts Institute of Technology Lincoln Laboratory	\$653,000

*\*\*Denotes agreement with other government agencies.*

## **SUMMARY**

Congressional appropriations for the FY 2020 DHP TBI/PH CSI totaled \$165M, of which the expenditures approximated \$154.71M for research, \$2.65M for SBIR/STTR withholds, and \$7.64M for management costs. The FY 2020 DHP TBI/PH CSI funded 101 projects across four key research areas: Battlefield TBI and Neurotrauma; Complex TBI Rehabilitation; Injury Prevention and Readiness Related to Blunt, Blast, and Accelerative Injury; and PH and Resilience. DoD continues to support research in the prevention, detection, diagnosis, treatment, and rehabilitation of TBI and PH issues through various agreements with Government agencies, as well as academic, non-profit, and other civilian research institutions, with the ultimate goal to improve preventative and management strategies for TBI and associated PH issues in the military and civilian populations. The Department remains committed to advancing TBI and PH research to advance the health and well-being of Service members and their families and ensure a medically ready force.