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

**PERSONNEL AND READINESS**

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

JUN 12 2024

Dear Mr. Chairman:

The Department's response to the Joint Explanatory Statement, pages 147-148, accompanying H.R. 2471, the Consolidated Appropriations Act, 2022 (Public Law 117–103), "Traumatic Brain Injury/Psychological Health," is enclosed.

This report covers Fiscal Year (FY) 2022 congressional appropriations for traumatic brain injury (TBI)/psychological health (PH) ($175 million), and summarizes the 59 projects, representing 65 awards, selected for FY 2022 funding. Through innovative and impactful research, the FY 2022 TBI/PH funded projects aim to enhance understanding, accelerate solutions, and complement ongoing Department of Defense efforts to optimize PH and TBI care in the areas of prevention, detection, diagnosis, treatment, and rehabilitation.

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

Sincerely,

[redacted]

Ashish S. Vazirani
Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Susan Collins
Ranking Member

[redacted]

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

**PERSONNEL AND READINESS**

The Honorable Ken Calvert
Chairman
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

JUN 12 2024

Dear Mr. Chairman:

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Sincerely,

[redacted]

Ashish S. Vazirani
Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Betty McCollum
Ranking Member

[redacted]

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

**PERSONNEL AND READINESS**

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

JUN 12 2024

Dear Mr. Chairman:

The Department's response to the Joint Explanatory Statement, pages 147-148, accompanying H.R. 2471, the Consolidated Appropriations Act, 2022 (Public Law 117–103), "Traumatic Brain Injury/Psychological Health," is enclosed.

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Sincerely,

[redacted]

Ashish S. Vazirani
Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Roger F. Wicker
Ranking Member

[redacted]

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

**PERSONNEL AND READINESS**

The Honorable Mike D. Rogers
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

JUN 12 2024

Dear Mr. Chairman:

The Department's response to the Joint Explanatory Statement, pages 147-148, accompanying H.R. 2471, the Consolidated Appropriations Act, 2022 (Public Law 117–103), "Traumatic Brain Injury/Psychological Health," is enclosed.

This report covers Fiscal Year (FY) 2022 congressional appropriations for traumatic brain injury (TBI)/psychological health (PH) ($175 million), and summarizes the 59 projects, representing 65 awards, selected for FY 2022 funding. Through innovative and impactful research, the FY 2022 TBI/PH funded projects aim to enhance understanding, accelerate solutions, and complement ongoing Department of Defense efforts to optimize PH and TBI care in the areas of prevention, detection, diagnosis, treatment, and rehabilitation.

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Sincerely,

[redacted]

Ashish S. Vazirani
Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

cc:
The Honorable Adam Smith
Ranking Member

[redacted]

# Report to the Congressional Defense Committees

# Traumatic Brain Injury/Psychological Health

## June 2024

The estimated cost of this report for the Department of Defense (DoD) is approximately $2,800.00 in Fiscal Years 2023–2024. This includes $1,700.00 in expenses and $1,100.00 in DoD labor.

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## BACKGROUND AND PURPOSE

This report is in response to the Joint Explanatory Statement 117–35, pages 147-148, accompanying H.R. 2471, the Consolidated Appropriations Act, 2022 (Public Law 117–103), "Traumatic Brain Injury/Psychological Health," which requests that the Assistant Secretary of Defense for Health Affairs submit a report to the congressional defense committees on expenditure and obligation data of additional funding appropriated by Congress for traumatic brain injury (TBI)/psychological health (PI).

Consistent with direction from the Assistant Secretary of Defense for Health Affairs, the Defense Health Agency (DHA) manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. DHA's Congressionally Directed Medical Research Programs (CDMRP) provides execution management for the DHP RDT&E TBI/PH Congressional Special Interest (CSI) funds. The Fiscal Year (FY) 2022 TBI/PH Research Program (TBIPHRP) vision is to optimize PH and reduce or eliminate the effects of TBI and traumatic stress. The program seeks to fund research to understand, prevent, and treat TBI and PH conditions that accelerates solutions to improve the health, well-being, and healthcare of Service members, veterans, Department of Defense (DoD) beneficiaries, and the American public.

## FY 2022 TBIPHRP OBLIGATIONS AND EXPENDITURES

Table 1 summarizes the FY 2022 TBI/PHRP obligations by category.

**Table 1. FY 2022 TBIPHRP Obligations Summary**

| | |
|---|---|
| **FY 2022 TBIPH Congressional Appropriation** | **$175,000,000** |
| Less: Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Withholds | ($5,837,000 [3.3 percent]) |
| Less: U.S. Army Medical Research and Development Command (USAMRDC) Withholds | ($3,379,024 [1.9 percent]) |
| Less: Management Costs | ($8,906,179 [5.1 percent]) |
| Amount Available for Program Research | $156,877,797 (89.6 percent) |

The FY 2022 TBIPHRP received 258 applications across five funding opportunity announcements and recommended funding for 59 applications, representing 65 separate awards (25.2 percent funding rate), totaling $156,877,797. The remaining $18,122,203 includes USAMRDC withholds, SBIR/STTR allocation, and CDMRP management costs. Table 2 provides a list of FY 2022 TBI/PH CSI research investments.

**Table 2. FY 2022 TBIPHRP Research Investments**

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Approaches for preclinical to clinical translation that expedite and advance prevention and treatment. | Translational Research Award | TBI Exosomal Activity in Military Personnel: Perivascular Space and Role of Indicators of Sleep Metrics TEAM PRISM | Johns Hopkins University | $2,794* |
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Focused Program Award | Advancing Precision Psychiatry for Military Service-Related PTSD [Post-Traumatic Stress Disorder] by Enhancing Knowledge of Clinical Subtypes and Their Endophenotypes | New York University School of Medicine | $602,815* |
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Focused Program Award | Elucidating the Role of Increased Neuroinflammation and Related Structural and Functional Neurological Sequelae After Exposure to Repetitive Blast | Naval Medical Research Center | $126,000* |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Focused Program Award | Discovering Diagnostics, Subtypes, and Natural History of Traumatic Brain Injury (TBI) vs. Non-TBI Recovery to Gain Military Advantage: The D2ISENTANGLE Focused Program Award | University of North Carolina at Chapel Hill | $27,620* |
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Focused Program Award | Neuroimmunoendocrine Interface: Exploring a Unifying Axis for Precision Care in PH and TBI (NEXUS) | University of Pittsburgh | $3,000* |
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Idea Development Award | Sleep Restriction and Mild Blast TBI on PTSD-Like Behavioral Outcome | Uniformed Services University of the Health Sciences | $5,000* |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Investigator-Initiated Research Award | Quantifying the Sensitivity and Specificity of Point-of-Care Biomarkers in a Large-Animal Model of Mild Traumatic Brain Injury | Lovelace Biomedical and Environmental Research Institute | $4,918* |
| Understand: Understanding of pre-exposure risk, injury, and biological factors contributing to an individual's response, recovery, and long-term outcomes following a brain injury or traumatic event. | Translational Research Award | ANAM [Automated Neuropsychological Assessment Metrics] Performance in Evaluating Injury and Psychological Health Risk: Establishing the Connection Between Cognition, Health, and Readiness | U.S. Army Research Institute of Environmental Medicine | $1,044,128* |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Focused Program Award | Program to Characterize Evolving Endophenotypes of Degeneration After Traumatic Brain Injury (PROCEED-TBI) | University of Pennsylvania | $7,956,997 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Focused Program Award | Consequences of Brain Injury on Glia-Neuron Dynamics, Neuropathology, and Neuropsychiatric Illness | Ohio State University | $7,700,740 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Focused Program Award | Understanding Gene x Stress Interactions Across the Cell Types of the Brain in PTSD | Icahn School of Medicine at Mount Sinai | $5,596,529 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Focused Program Award | Brain Risk Assessment for Individual Neurological (BRAIN) Health: Understanding/ Preventing Consequences from Repetitive mTBI [Mild TBI] and Head Impact Exposures | University of Pittsburgh | $5,300,386 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Focused Program Award | Long-Term Psychological and Physical Health Outcomes Following Military Deployment: The Veterans After-Discharge Longitudinal Registry (Project VALOR) | Boston VA [Department of Veterans Affairs] Research Institute, Inc. (BVARI) | $2,916,605 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Prebiotic and Probiotic Interventions for Treatment of TBI-Induced Microbiome Dysfunction | Ohio State University | $717,896 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Trajectories of Neuroimaging and Blood-Based Biomarkers After Remote Traumatic Brain Injury and Associations with Dementia Risk | University of Pennsylvania | $683,442 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Targeting Glucotoxicity to Improve Psychological Health After TBI | Rutgers, The State University of New Jersey - Newark | $643,247 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Evaluating Reductions in Hippocampal Volume Related to Blast Exposure and Their Effect on Memory Function | Salisbury Foundation for Research and Education, Inc. | $549,904 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Law Enforcement Officers and Traumatic Brain Injuries | Ohio State University | $512,751 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Law Enforcement Officers and Traumatic Brain Injuries | Ohio State University | $248,237 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Investigator-Initiated Research Award | Trajectories of Neuroimaging and Blood-Based Biomarkers After Remote Traumatic Brain Injury and Associations with Dementia Risk | University of Pennsylvania | $87,136 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Translational Research Award | Measuring Autonomic Nervous System in Warfighters Following Exertion and Resting Stressors (Measuring ANSWERS) | University of North Carolina at Chapel Hill | $1,555,000 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Translational Research Award | The Combat Polytrauma Triad: Photosensitivity as a Link Between PTSD and Chronic Pain After TBI | Oregon Health and Science University | $1,338,393 |
| Understand: Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health and/or TBI conditions. | Translational Research Award | microRNA [Ribonucleic Acid] Biomarkers of Cumulative Blast-Mild Traumatic Brain Injury (Micro BCB) | VA Puget Sound Health Care System | $1,131,357 |
| Prevent and Assess: Identification and validation of biomarkers or other objective markers for diagnosis, prognosis, or monitoring of psychological health and/or TBI conditions, repetitive exposures, and associated sequelae. | Clinical Trial Award - Research Level 1 | Inhaled Nitric Oxide for Treatment of Microvascular Dysfunction in Traumatic Brain Injury | University of Pennsylvania | $655,533 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Prevent and Assess: Identification and validation of biomarkers or other objective markers for diagnosis, prognosis, or monitoring of psychological health and/or TBI conditions, repetitive exposures, and associated sequelae. | Clinical Trial Award - Research Level 1 | Inhaled Nitric Oxide for Treatment of Microvascular Dysfunction in Traumatic Brain Injury | University of Pennsylvania | $67,091 |
| Prevent and Assess: Identification and validation of biomarkers or other objective markers for diagnosis, prognosis, or monitoring of psychological health and/or TBI conditions, repetitive exposures, and associated sequelae. | Focused Program Award | Trauma-Induced Coagulopathy and the Blood-Brain Barrier: Impact of Resuscitation | University of Texas Health Science Center at Houston | $7,693,599 |
| Prevent and Assess: Identification and validation of biomarkers or other objective markers for diagnosis, prognosis, or monitoring of psychological health and/or TBI conditions, repetitive exposures, and associated sequelae. | Focused Program Award | POINT-mTBI: Prospective Study of Point-of-Care Blood-Based Biomarkers in Acute Military, Civilian, and Sport-Related Mild Traumatic Brain Injury (mTBI) | Medical College of Wisconsin | $6,403,731 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Prevent and Assess: Identification and validation of biomarkers or other objective markers for diagnosis, prognosis, or monitoring of psychological health and/or TBI conditions, repetitive exposures, and associated sequelae. | Investigator-Initiated Research Award | An International Collaboration to Improve the Precision of the Glasgow Outcome Scale Extended (GOSE) | Medical College of Wisconsin | $687,815 |
| Prevent and Assess: Approaches or tools to prevent or reduce risk of psychological health and/or TBI conditions. | Clinical Trial Award - Research Level 2 | Prevention of Post-Traumatic Stress: A Randomized Controlled Trial of Brief Prolonged Exposure Therapy for Injured Individuals Admitted to a Level I Trauma Center | Baylor Research Institute | $2,763,615 |
| Prevent and Assess: Approaches or tools to prevent or reduce risk of psychological health and/or TBI conditions. | Translational Research Award | Model Development and Translation of a Virtual Reality Military Operational Neuropsychological Assessment (VRMONA) | University of Arizona, Tucson | $1,534,738 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Prevent and Assess: Development, evaluation, and implementation of cross-cutting prevention approaches targeting upstream factors or leveraging communities and peers to address multiple adverse outcomes. | Clinical Trial Award - Research Level 2 | A Cluster Randomized Controlled Trial of X-Core: A Multilevel Sexual Assault Prevention Intervention for Active-Duty Airmen | University of Texas Health Science Center at Houston | $3,024,846 |
| Prevent and Assess: Development, evaluation, and implementation of cross-cutting prevention approaches targeting upstream factors or leveraging communities and peers to address multiple adverse outcomes. | Patient-Centered Research Award | Enhancement of Strength at Home Implementation to Prevent Violence and Related Outcomes | Boston University Medical Campus | $1,152,184 |
| Prevent: Development, evaluation, and implementation of crosscutting prevention approaches targeting upstream factors or leveraging communities and peers to address multiple adverse outcomes. | Clinical Trial Award - Research Level 1 | Harnessing the Power of Military Peers to Reduce Sexual Violence and Risky Drinking in Navy Sailors | University at Buffalo | $126,000* |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Prevent and Assess: Solutions to increase readiness and resilience in individuals, small teams, families, and communities to ameliorate the potential negative impacts of specific military and life stressors. | Clinical Trial Award - Research Level 3 | RCT [Randomized Controlled Trial] of a Trauma-Informed Parent-Child Functioning Intervention for Military Veterans | University of Texas at Austin | $3,444,151 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Cognitive Behavioral Therapy for Insomnia vs. Brief Behavioral Therapy for Insomnia in Military Personnel with Post-Concussive Symptoms Following Mild TBI | University of Texas Health Science Center at San Antonio | $2,871,360 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Acceptance and Commitment Therapy Integrated Vestibular Rehabilitation (ACTIVE) for mTBI: A Targeted, Randomized, Controlled Trial | University of Pittsburgh | $2,565,719 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Multimodal Image Analysis and Guidance of Neuromodulation for Trauma-Related Symptoms (MAGNETS) | University of New Mexico Health Sciences Center | $2,479,978 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Wearable Technology to Characterize and Treat mTBI Subtypes: Biofeedback-Based Precision Rehabilitation | Oregon Health and Science University | $2,396,078 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Targeted Plasticity Therapy for the Treatment of Post-Traumatic Stress Disorder | University of Texas at Dallas | $2,317,051 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Remotely Supervised tDCS Combined with Cognitive Training to Improve Complex Attention in Active-Duty Service Members and Veterans with Mild TBI | General Dynamics Information Technology | $2,260,121 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | A Randomized Clinical Trial of Quetiapine to Reduce Post-Concussive Syndrome Polypharmacy | Foundation for Advancing Veterans' Health Research | $2,140,031 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Silexan in the Treatment of Post-Traumatic Stress Disorder (STOP) Trial: A Randomized, Placebo-Controlled, Double-Blind Trial | Deakin University | $2,031,972 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | ADEPT: Adaptive Trial for the Treatment of Depressive Symptoms Associated with Concussion Using Repetitive Transcranial Magnetic Stimulation Protocols | Uniformed Services University of the Health Sciences | $5,608,291 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | Clinical Effectiveness and Implementation of Massed Prolonged Exposure for PTSD Among Veterans in Intensive Outpatient Substance Use Treatment | Veterans Medical Research Foundation of San Diego | $5,157,640 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | Promoting Rapid Return to Functioning After Acute Stress Reaction: Assessing the Efficacy of the iCOVER Intervention | University of North Carolina at Chapel Hill | $4,949,186 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | Clinical Effectiveness and Implementation of Trauma-Informed Guilt Reduction Therapy Compared to Prolonged Exposure | Veterans Medical Research Foundation of San Diego | $4,910,555 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | Autologous Adipose-Derived MSCs [Mesenchymal Stem Cells] for Chronic Traumatic Brain Injury | University of Texas Health Science Center at Houston | $4,541,790 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Focused Program Award | Design Microbiome-Based Therapies to Prevent and Ameliorate Post-Traumatic Stress Disorder | Brigham and Women's Hospital | $6,319,054 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | Amnion Cell Secretome-Mediated Therapy for Traumatic Brain Injury | Roskamp Institute | $817,085 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | The Epichaperome: A Novel Therapeutic Target for Blast Traumatic Brain Injury | University of Pittsburgh | $795,000 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | Mitigating Traumatic Brain Injuries and Neurological Implications via the Immunometabolite Itaconate | University of California, San Diego | $790,000 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | NOP [Nociceptin/ Orphanin FQ Peptide] Receptor Modulator Treatment Optimizes Cognitive, Locomotor, and Sensory Outcomes of Mild Concussive TBI with and Without PTSD | University of Oklahoma Health Sciences Center | $725,000 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | Evaluating the Therapeutic Potential of Bumetanide as an Acute Cerebral Edema Treatment Following Penetrating Traumatic Brain Injury in Rats | Walter Reed Army Institute of Research | $703,337 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | Analysis of the Feasibility of Iontophoretic Delivery of Glyburide for Point-of-Injury Treatment of Traumatic Brain Injury in Swine | Walter Reed Army Institute of Research | $702,520 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | Point-of-Injury Intranasal ALM [Adenosine, Lidocaine, and Magnesium] Drug Therapy to Reduce Secondary Injury and Improve Outcomes After TBI in Civilian and Military Resource-Limited Environments | James Cook University | $613,585 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | CD98hc-Mediated Delivery of an Ultrapotent TrkB Agonist Antibody for Neuroprotection and Improved Cognitive Recovery After Traumatic Brain Injury | University of Michigan | $377,115 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Investigator-Initiated Research Award | CD98hc-Mediated Delivery of an Ultrapotent TrkB Agonist Antibody for Neuroprotection and Improved Cognitive Recovery After Traumatic Brain Injury | University of Michigan | $297,758 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Patient-Centered Research Award | SMART-CPT [Symptom Management and Rehabilitation Therapy-Cognitive Processing Therapy] for PTSD and History of Concussion: A Pragmatic Implementation Trial | Veterans Medical Research Foundation of San Diego | $1,269,363 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Patient-Centered Research Award | Development and Pilot Testing of eHealth Problem-Solving Training (ePST) for Adults with Traumatic Brain Injury | TIRR Memorial Hermann | $1,166,024 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Patient-Centered Research Award | Implementing and Evaluating a Patient-Centered PTSD Treatment Program for Military Personnel | University of Texas Health Science Center at San Antonio | $936,532 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Patient-Centered Research Award | Implementing and Evaluating a Patient-Centered PTSD Treatment Program for Military Personnel | University of Texas Health Science Center at San Antonio | $508,815 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | First-in-Class Peptidomimetic Drug for the Treatment of TBI and Sequelae: Nonclinical Safety Assessment | Alcamena Stem Cell Therapeutics, LLC | $1,700,000 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Targeting Inflammatory Astrocyte Reactivity in Mild Traumatic Brain Injury | Palo Alto Institute for Research and Education | $1,400,500 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Identifying Circuit Mechanisms of MDMA [3,4-Methylenedioxy-methamphetamine] and Methylone to Develop Plasticity-Based PTSD Treatment | Yale University | $1,351,106 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Creation of New Chemical Entities (NCEs) for Treating Traumatic Brain Injury | MicroQuin | $999,300 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Improving Functional Outcomes in Traumatic Brain Injury Through Enhanced Neuroplasticity and Repair: Evaluation of Potential Therapeutic NVG-291 | Walter Reed Army Institute of Research | $987,149 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Retrospective Study of Treatment Outcomes: Understanding the Role of Personal, Organizational, and Treatment Factors in Army Alcohol Treatment Outcomes | University of Texas at Austin | $901,042 |
| Treat: Interventions that promote sustained functional recovery during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Identifying Circuit Mechanisms of MDMA and Methylone to Develop Plasticity-Based PTSD Treatment | Yale University | $99,307 |
| Treat: Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 1 | Building Emotional Self-Awareness Teletherapy (BEST): A Tool to Optimize Psychological Health Outcomes for Persons with Traumatic Brain Injury | Indiana University | $110,886* |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
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| Treat: Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Phase 2 Randomized Controlled Trial of Sildenafil Citrate for Treatment of Cerebrovascular Dysfunction in Chronic Traumatic Brain Injury | University of Pennsylvania | $35,190* |
| Treat: Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 2 | Prevention/Reduction of ASRs [Acute Stress Reactions] and PTSD to Sustain Civilian Performance with Sublingual Cyclobenzaprine HCl (TNX-102 SL) | University of North Carolina at Chapel Hill | $25,110* |
| Treat: Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | Combat Insomnia: A Randomized Controlled Trial of Cognitive-Behavioral vs. Mindfulness-Based Treatment for TBI-Related Insomnia and Post-Traumatic Stress Symptoms | Johns Hopkins University | $30,316* |
| Treat: Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury. | Clinical Trial Award - Research Level 3 | Exercise Reset for Concussion: Modifying the Buffalo Concussion Protocol for Application in a Military Environment | University at Buffalo | $23,000* |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
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| Treat: Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury. | Translational Research Award | Portable Mixed Reality-Based Platform for Assessment of Progress in Multisensory Rehabilitation Strategies for Post-TBI Return-to-Duty (RTD) Decision-Making | Intelligent Automation, Inc. | $37,000* |
| Treat: Validated methods for reducing barriers to care for psychological health and/or TBI challenges and understanding mechanisms of change in help-seeking behavior. | Clinical Trial Award - Research Level 3 | The REACH Intervention for Caregivers of Veterans and Service Members with TBI: Efficacy and Implementation Planning Across the VA Polytrauma System of Care | University of Virginia | $4,778,800 |
| Treat: Validated methods for reducing barriers to care for psychological health and/or TBI challenges and understanding mechanisms of change in help-seeking behavior. | Translational Research Award | Personalized Dosing of Noninvasive Brain Stimulation Using fNIRS-TMS [Functional Near-Infrared Spectroscopy-Transcranial Magnetic Stimulation] Technology | Florida State University | $1,442,341 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
|---|---|---|---|---|
| Treat: Implementation, follow-up, and services research to increase provider adoption and availability of evidence-based treatments, as well as treatment engagement, follow-up care, and understanding of long-term outcomes. | Clinical Trial Award - Research Level 2 | Angiotensin-(1-7): A Treatment for Neuropsychological and Memory Impairments Following Moderate to Severe Traumatic Brain Injury | University of Arizona, Tucson | $3,004,651 |
| Treat: Implementation, follow-up, and services research to increase provider adoption and availability of evidence-based treatments, as well as treatment engagement, follow-up care, and understanding of long-term outcomes. | Focused Program Award | Improving Health Care Access and Engagement for Veterans and Service Members with TBI Morbidity | James A. Haley VA Medical Center | $6,325,327 |

| Research Area | Funding Opportunity Announcement | Title | Organization | FY 2022 Obligation |
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| Treat: Implementation, follow-up, and services research to increase provider adoption and availability of evidence-based treatments, as well as treatment engagement, follow-up care, and understanding of long-term outcomes. | Focused Program Award | Contribution of Psychological Health Comorbidity to Personalized Treatment for Headache Attributable to mTBI | University of Texas Health Science Center at San Antonio | $5,773,552 |
| Treat: Implementation, follow-up, and services research to increase provider adoption and availability of evidence-based treatments, as well as treatment engagement, follow-up care, and understanding of long-term outcomes. | Translational Research Award | Turning Training into Action: Translating Training of Behavioral Health Providers into Evidence-Based Practices | Purdue University | $1,294,062 |

*Previously approved FY 2021 research awards. FY 2022 funds were committed to support outyears.

**SUMMARY**

The TBIPHRP funds research to understand, prevent, assess, and treat PH conditions and/or TBI that accelerates solutions to improve the health, well-being, and health care of Service members, DoD beneficiaries, veterans, and the American public. Congressional appropriations for the FY 2022 TBIPHRP totaled $175 million (M), of which the expenditures approximated $156.88M for research, $5.84M for SBIR/STTR withholds, $3.38M for USAMRDC withholds, and $8.91M for CDMRP management costs. The FY 2022 TBIPHRP funded 59 projects, representing 65 separate awards. These projects align with the program's vision to optimize the prevention, assessment, and treatment of PH conditions and TBI.