

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)  
 CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)  
 FISCAL YEAR 2022 (FY22) TRAUMATIC BRAIN INJURY AND PSYCHOLOGICAL  
 HEALTH RESEARCH PROGRAM (TBIPHRP)**

**DESCRIPTION OF REVIEW PROCEDURES**

The programmatic strategy implemented by the FY22 TBIPHRP called for applications in response to program announcements (PAs) for three award mechanisms released in July 2022:

- Translational Research Award
- Patient-Centered Research Award
- Investigator-Initiated Research Award

Letters of Intent (LOIs) were received for the Translational Research Award, Patient-Centered Research Award, and Investigator-Initiated Research Award in August 2022.

Applications were received for these three PAs in September 2022 and peer reviewed in November 2022. Programmatic review was conducted in January 2022.

In response to the Translational Research Award PA, 82 LOIs and 62 compliant applications were received, of which 12 (19.4%) were recommended for funding, representing 13 total awards, for a total of \$15.97 million (M).

In response to the Patient-Centered Research Award PA, 16 LOIs and 10 compliant applications were received, of which 4 (40.0%) were recommended for funding, representing 5 total awards, for a total of \$5.13M.

In response to the Investigator-Initiated Research Award PA, 136 LOIs and 94 compliant applications were received, of which 14 (14.9%) were recommended for funding, representing 17 total awards, for a total of \$10.00M.

Submission and award data for the FY22 TBIPHRP are summarized in the tables below.

**Table 1. Submission/Award Data for the FY22 TBIPHRP\***

<b>Mechanism</b>	<b>LOIs Received</b>	<b>Compliant Applications Received</b>	<b>Applications Recommended for Funding<sup>±</sup> (%)</b>	<b>Total Funds</b>
Translational Research Award	82	62	12 (19.4%, 13 awards)	\$15.97M
Patient-Centered Research Award	16	10	4 (40.0%, 5 awards)	\$5.13M

<b>Mechanism</b>	<b>LOIs Received</b>	<b>Compliant Applications Received</b>	<b>Applications Recommended for Funding<sup>±</sup> (%)</b>	<b>Total Funds</b>
Investigator-Initiated Research Award	136	94	14 (14.9%, 17 awards)	\$10.00M
<b>Total</b>	<b>234</b>	<b>166</b>	<b>30 (18.1%, 35 awards)</b>	<b>\$31.10M</b>

\*These data reflect funding recommendations only. Pending FY22 award negotiations, final numbers will be available after September 30, 2023.

<sup>±</sup>The Translational Research Award, Patient-Centered Research Award, and Investigator-Initiated Research Award had an Early-Career Investigator Partnering Option. The Translational Research Award had 12 applications recommended for funding representing 13 total awards. The Patient Centered Research Award had four applications recommended for funding representing five total awards. The Investigator-Initiated Research Award had 14 applications recommended for funding representing 17 total awards. Overall, there were 30 applications recommended for funding representing 35 total awards.

**Table 2. FY22 TBIPHRP Application Data by Focus Area**

<b>Focus Area</b>	<b>Compliant Applications Received</b>	<b>Applications Recommended for Funding (%)</b>	<b>Total Funds</b>
Understand – Understanding of risk, protective, and biological factors contributing to an individual’s vulnerability to, response to, and long-term outcomes of psychological health conditions and/or traumatic brain injury (TBI).	48	8 (16.7%)	\$7.47M
Understand – Understanding sexual Harassment and assault prevention, perpetration, victimization, and response.	2	0 (0.0%)	\$0.00M
Prevent and Assess – Identification and validation of biomarkers or other objective markers for diagnosis, prognosis, or monitoring of psychological health conditions and/or TBI, repetitive exposures, and associated sequelae.	31	1 (3.2%)	\$0.69M
Prevent and Assess – Approaches or tools to prevent or reduce risk of psychological health and/or TBI conditions.	16	1 (6.3%)	\$1.53M
Prevent and Assess – Development of injury thresholds and exposure standards.	1	0 (0.0%)	\$0.00M
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 such as suicide, multiple forms of violence, and alcohol and substance misuse.	2	1 (50.0%)	\$1.15M

<b>Focus Area</b>	<b>Compliant Applications Received</b>	<b>Applications Recommended for Funding (%)</b>	<b>Total Funds</b>
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.	1	0 (0.0%)	\$0.00M
Prevent and Assess – Solutions to address aspects of workplace culture and climate that are associated with increases in harmful behaviors.	0	0 (0.0%)	\$0.00M
Treat – Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury.	60	17 (28.3%)	\$17.53M
Treat – Validated individual-, peer-/unit-/team-, leader-, family-, caregiver-, community-, and enterprise-level methods for reducing barriers to care for psychological health conditions and/or TBI challenges and understanding mechanisms of help-seeking behavior.	1	1 (100.0%)	\$1.44M
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.	4	1 (25.0%)	\$1.29M
Treat – Effective community-level postvention strategies to address social connectedness during reintegration of individuals into workplace teams or the community following a sexual assault, suicide event, or other severe trauma.	0	0 (0.0%)	\$0.00M
<b>Totals</b>	<b>166</b>	<b>30 (18.1%)</b>	<b>\$31.10M</b>

### **THE TWO-TIER REVIEW SYSTEM**

The USAMRDC developed a review model based on recommendations of the 1993 Institute of Medicine (IOM) (now called the National Academy of Medicine) of the National Academy of Sciences report, *Strategies for Managing the Breast Cancer Research Program: A Report to the Army Medical Research and Development Command*. The IOM report recommended a two-tier review process and concluded that the best course would be to establish a peer review system that reflects not only the traditional strengths of existing peer review systems, but also is tailored to accommodate program goals. The Command has adhered to this proven approach for evaluating competitive applications. An application must be favorably reviewed by both levels of the two-tier review system to be funded.

## **THE FIRST TIER—Scientific Peer Review**

Translational Research Award applications were peer reviewed via videoconference in November 2022 by 15 panels of a total of 157 researchers and clinicians as well as 29 consumer advocates, based on the evaluation criteria specified in the PA. Patient Centered Research Award applications were peer reviewed via videoconference in November 2022 by 7 panels of a total of 78 researchers and clinicians as well as 13 consumer advocates, based on the evaluation criteria specified in the PA. Investigator-Initiated Research Award applications were peer reviewed via videoconference in November 2022 by 15 panels of a total of 157 researchers and clinicians as well as 29 consumer advocates, based on the evaluation criteria specified in the PA.

Each peer review panel included a Chair, an average of four scientific reviewers, two clinician-scientist reviewers, two consumer reviewers, one biostatistician reviewer, one technology transfer specialist reviewer, one bioethicist reviewer, and a nonvoting Scientific Review Officer. The primary responsibility of the panelists was to review the technical merit of each application based upon the evaluation criteria specified in the relevant PA.

### **Individual Peer Review Panels**

The Chair for each panel presided over the deliberations. Applications were discussed individually. The Chair called upon the assigned reviewers for an assessment of the merits of each application using the evaluation criteria published in the appropriate PA. Following a panel discussion, the Chair summarized the strengths and weaknesses of each application, and panel members then rated the applications confidentially.

### **Application Scoring**

*Evaluation Criteria Scores:* Panel members were asked to rate each peer review evaluation criterion as published in the appropriate PA. A scale of 1 to 10 was used, with 1 representing the lowest merit and 10 the highest merit, using whole numbers only. The main reasons for obtaining the criteria ratings were to (1) place emphasis on the published evaluation criteria and provide guidance to reviewers in determining an appropriate overall score, and (2) provide the applicant, the Programmatic Panel, and the Command with an informed measure of the quality regarding the strengths and weaknesses of each application. The evaluation criteria scores were not averaged or mathematically manipulated in any manner to connect them to the global or percentile scores.

*Overall Score:* To obtain an overall score, a range of 1.0 to 5.0 was used (1.0 representing the highest merit and 5.0 the lowest merit). Reviewer scoring was permitted in 0.1 increments. Panel member scores were averaged and rounded to arrive at a two-digit number (1.2, 1.9, 2.7, etc.). The following adjectival equivalents were used to guide reviewers: Outstanding (1.0–1.5), Excellent (1.6–2.0), Good (2.1–2.5), Fair (2.6–3.5), and Deficient (3.6–5.0).

*Summary Statements:* The Scientific Review Officer on each panel was responsible for preparing a Summary Statement reporting the results of the peer review for each application. The Summary Statements included the evaluation criteria and overall scores, peer reviewers' written comments, and the essence of panel discussions. This document was used to report the peer review results to the Programmatic Panel. It is the policy of the USAMRDC to make Summary Statements available to each applicant when the review process has been completed.

## **THE SECOND TIER—Programmatic Review**

Programmatic review was conducted in January 2022 by the FY22 Programmatic Panel that was comprised of a diverse group of basic and clinical scientists and consumer advocates, each contributing special expertise or interest in traumatic brain injury or psychological health. Programmatic review is a comparison-based process that considers scientific evaluations across all disciplines and specialty areas. Programmatic Panel members do not automatically recommend funding applications that were highly rated in the technical merit review process; rather, they carefully scrutinize applications to allocate the limited funds available to support each of the award mechanisms as wisely as possible. Programmatic review criteria for the Translational Research Award, Patient-Centered Research Award, and Investigator-Initiated Research Award published in the PAs were as follows: ratings and evaluations of the scientific peer review panels; adherence to the intent of the award mechanism; program portfolio composition; relative impact and relevance to military health. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.