

**US ARMY MEDICAL RESEARCH AND MATERIEL COMMAND (USAMRMC)  
 CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)  
 FISCAL YEAR 2016 (FY16) PSYCHOLOGICAL HEALTH/TRAUMATIC BRAIN  
 INJURY RESEARCH PROGRAM (PH/TBIRP)  
 COGNITIVE RESILIENCE AND READINESS RESEARCH AWARD (CR3A)**

**DESCRIPTION OF REVIEW PROCEDURES**

The programmatic strategy implemented by the FY16 PH/TBIRP called for applications in response to a program announcement (PA) for one award mechanism released in May 2016.

Cognitive Resilience and Readiness Research Award pre-applications were received for this one PA in June 2016 and screened in July 2016 to determine which investigators would be invited to submit a full application. Pre-applications were screened based on the evaluation criteria specified in the PA.

Applications were received for one PA in September 2016 and peer reviewed in November 2016. Programmatic review was conducted in January 2017.

In response to the CR3A PA, 58 pre-applications were received and the Principal Investigators (PIs) of 20 of these were invited to submit a full application. Sixteen (16) compliant applications were received and 1 (6.25%) was recommended for funding for a total of \$2.5 million (M).

Submission and award data for the FY16 PH/TBIRP CR3A are summarized in the table below.

**Table 1. Submission/Award Data for the FY16 PH/TBIRP**

| <b>Mechanism</b> | <b>Pre-Applications Received</b> | <b>Pre-Applications Invited (%)</b> | <b>Compliant Applications Received</b> | <b>Applications Recommended for Funding (%)</b> | <b>Total Funds</b> |
|------------------|----------------------------------|-------------------------------------|--|---|--------------------|
| CR3A             | 58                               | 20<br>(34%)                         | 16                                     | 1<br>(6.25%)                                    | \$2,500,000        |

**THE TWO-TIER REVIEW SYSTEM**

The USAMRMC developed a review model based on recommendations of the 1993 Institute of Medicine (IOM) 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**

Cognitive Resilience and Readiness Research Award applications were peer reviewed in November 2016 by a panel of 16 reviewers — seven researchers, four clinicians, two Technology Transfer Specialists, two consumer advocates, and a nonvoting Scientific Review Officer (SRO) — based on the evaluation criteria specified in the PA. 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 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 applicants' abstracts, 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 USAMRMC 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 2017, by the FY16 Programmatic Panel, comprised of a diverse group of basic and clinical scientists, each contributing special expertise

or interest. 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 published in the PA were as follows: ratings and evaluations of the scientific peer review panel; adherence to the intent of the award mechanism; relative impact and military benefit; program portfolio composition; and relative feasibility of the transition plan. After programmatic review, the Commanding General, USAMRMC, and the Director of the Defense Health Agency, Research, Development and Acquisition Directorate approved funding for the applications recommended during programmatic review.