

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)
FISCAL YEAR 2020 (FY20) PEER REVIEW MEDICAL RESEARCH PROGRAM
(PRMRP)**

DESCRIPTION OF REVIEW PROCEDURES

The PRMRP called for applications in response to program announcements (PAs) focused on coronavirus disease 2019 (COVID-19) research as well as research on SARS-CoV-2, the virus that causes COVID-19, with the intent to invest approximately \$75 million (M) of the FY20 PRMRP \$360M appropriation. Funding was directed toward two of PRMRP’s Congressionally directed topic areas: Emerging Viral Diseases (EVD) and Respiratory Health (RH). Four award mechanisms were released in April 2020:

- Clinical Trial Award (CTA)
- Expansion Award (EA)
- Investigator-Initiated Research Award (IIRA)
- Technology/Therapeutic Development Award (TTDA)

Letters of Intent (LOIs) were received for the EA, IIRA, and TTDA PAs in May 2020 and for the CTA PA in June 2020.

Applications were received for these four PAs in June 2020 and peer reviewed in July 2020. Programmatic review was conducted in August 2020.

Submission and award data are summarized in the tables below. Application counts represent numbers of individual projects, but the recommended budgets include the budgets of IIRA Partnering PI applications that were recommended for funding.

Table 1. Submission/Award Data for the FY20 PRMRP*

Mechanism	LOIs Received	Compliant Project Received	Projects Recommended for Funding (%)	Total Funds
CTA	95	57	4 (7.0%)	\$22,372,599
EA	33	30	4 (13.3%)	\$6,874,651
IIRA	365 [†]	257 [‡]	6 (2.3%) (9 Awards)	\$15,877,989
TTDA	267	178	7 (3.9%)	\$31,435,893
Total	760	522	21 (4.0%) (24 Awards)	\$76,561,132

*These data reflect funding recommendations only. Pending FY20 award negotiations, final numbers will be available after September 30, 2021.

[†]502 total IIRA LOIs representing 365 individual projects.

[‡]354 total IIRA applications representing 257 projects.

Table 2. FY20 PRMRP Application Data by Primary Focus Area

Primary Focus Area	Compliant Projects Received	Projects Recommended for Funding (%)	Total Funds
EVD–Antibody Studies	28	0 (0.0%)	\$0
EVD–Mechanisms/Biomarkers	95	4 (4.2%)	\$11,380,884
EVD–Readiness/Resilience	25	2 (8.0%)	\$9,251,871
EVD–Surveillance/Artificial Intelligence	13	1 (7.7%)	\$2,718,398
EVD–Triage of Care	20	1 (5.0%)	\$2,860,194
EVD–Wearable Sensors	47	0 (0.0%)	\$0
RH–Biomarker Metrics	1	0 (0.0%)	\$0
RH–Etiology/Prevent of Acute Respiratory Distress Syndrome	31	0 (0.0%)	\$0
RH–Health Impacts in Service Members	5	0 (0.0%)	\$0
RH–Improve Treatment of Lung Injury	20	0 (0.0%)	\$0
RH–Novel Detection/Therapeutics	83	5 (6.0%)	\$19,558,854
RH–Pharmacological and Biologic Intervention	107	6 (5.6%)	\$23,924,982
RH–Prevent in Military Setting	22	1 (4.5%)	\$1,276,120
RH–Ventilation/Extracorporeal Life Support	25	1 (4.0%)	\$5,589,829
Totals	522	21 (4.0%) (24 Awards)	\$76,561,132

Table 3. FY20 PRMRP Application Data by Secondary Focus Area

Secondary Focus Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
EVD–Antibody Studies	0	0 (0.0%)	\$0
EVD–Mechanisms/Biomarkers	19	1 (5.3%)	\$2,718,398
EVD–Readiness/Resilience	6	0 (0.0%)	\$0
EVD–Surveillance/Artificial Intelligence	10	1 (10.0%)	\$6,739,284
EVD–Triage of Care	6	0 (0.0%)	\$0
EVD–Wearable Sensors	4	0 (0.0%)	\$0
RH–Biomarker Metrics	6	1 (16.7%)	\$2,860,194
RH–Etiology/Prevent of Acute Respiratory Distress Syndrome	12	1 (8.3%)	\$2,010,000
RH–Health Impacts in Service Members	2	1 (50.0%)	\$2,512,587
RH–Improve Treatment of Lung Injury	14	2 (14.3%)	\$9,038,647

Secondary Focus Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
RH–Novel Detection/Therapeutics	51	3 (5.9%)	\$8,347,023
RH–Pharmacological and Biologic Intervention	42	1 (2.4%)	\$1,680,000
RH–Prevent in Military Setting	0	0 (0.0%)	\$0
RH–Ventilation/Extracorporeal Life Support	3	0 (0.0%)	\$0
None Selected	347	10 (2.9%)	\$40,654,999
Totals	522	21 (4.0%) (24 Awards)	\$76,561,132

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

Peer review for applications received in response to these four PAs was conducted in July 2020 by review panels based on the evaluation criteria specified in each respective PA. Each peer review panel included a Chair, scientific reviewers, and a nonvoting Scientific Review Officer. EA, IIRA, and TTDA applications were peer reviewed by 20 panels. The CTA applications were reviewed by three panels.

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 August 2020 by FY20 Programmatic Panel members and ad hoc reviewers from each branch of the military Services, USAMRDC headquarters, the Department of Veterans Affairs, the Defense Health Agency, the Department of Health and Human Services, the Office of the Principal Assistant for Acquisition, the Telehealth and Advanced Technology Research Center, and academia. 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 PAs were as follows: ratings and evaluations of the scientific peer review panels; adherence to the intent of the award mechanism; program portfolio composition; relevance to military health; and relative impact. After programmatic review, the Commanding General, USAMRDC approved funding for the applications recommended during programmatic review.