

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
 CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS
 FISCAL YEAR 2023 (FY23) PEER REVIEW CANCER RESEARCH PROGRAM
 (PRCRP)**

DESCRIPTION OF REVIEW PROCEDURES

The programmatic strategy implemented by the FY23 PRCRP called for applications in response to program announcements (PAs) for three award mechanisms released in April 2023:

- Career Development Award – Fellow Option (CDA-FO)
- Career Development Award – Resident Option (CDA-RO) – Funding Level I and Funding Level II
- Patient Well-Being and Survivorship Award (PWSA)
- Translational Team Science Award (TTSA)

Principal Investigators were asked to submit a letter of intent to submit a full application. Applications were received for these three PAs in August 2023 and they were peer reviewed in October 2023. Programmatic review was conducted in December 2023. The FY23 PRCRP also released three PAs: Idea Award, Impact Award, and Advancing Cancer Care through Clinical Trials Award to be programmatically reviewed in January 2024.

In response to the CDA-FO PA, 31 compliant applications were received and 10 (32.3%) were recommended for funding for a total of \$6.5 million (M).

In response to the CDA-RO PA, 12 compliant applications were received and 2 (16.7%) were recommended for funding for a total of \$1.1M.

In response to the PWSA PA, 34 compliant applications were received and 8 (23.5%) were recommended for funding for a total of 11.4M.

In response to the TTSA PA, 44 compliant applications were received and 9 (20.5%) were recommended for funding for a total of \$31.4M.

Submission and award data for the FY23 PRCRP are summarized in the table(s) below.

Table 1. Submission/Award Data for the FY23 PRCRP*

Mechanism	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
CDA-FO	31	10 (32.3%)	\$6.5M
CDA-RO Level I	5	0 (0.0%)	\$0.0M
CDA-RO Level II	7	2 (28.6%)	\$1.1M

Mechanism	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
PWSA	34	8 (23.5%)	\$11.4M
TTSA [†]	44	9 (20.5%)	\$31.4M
Total	121	29 (24.0%)	\$50.4M

*These data reflect funding recommendations only. Pending FY23 award negotiations, final numbers will be available after September 30, 2023.

[†]The numbers 44 and 9 presented here for the TTSA represent the number of individual projects, which account for 110 and 22 potential awards.

Table 2. FY23 PRCRP Application Data by Topic Area

Topic Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Bladder Cancer	13	1 (7.7%)	\$0.65M
Blood Cancer	8	3 (37.5%)	\$4.94M
Brain Cancer	18	4 (22.2%)	\$3.18M
Colorectal Cancer	12	4 (33.3%)	\$11.26M
Endometrial Cancer	7	2 (28.6%)	\$2.15M
Esophageal Cancer	2	1 (50.0%)	\$2.10M
Germ Cell Cancers	3	1 (33.3%)	\$1.51M
Head and Neck Cancers	6	0 (0.0%)	\$0.00M
Liver Cancer	6	1 (16.7%)	\$0.62M
Lymphoma	3	0 (0.0%)	\$0.00M
Mesothelioma	6	1 (16.7%)	\$1.13M
Metastatic Cancers	7	2 (28.6%)	\$5.50M
Myeloma	4	0 (0.0%)	\$0.00M
Neuroblastoma	2	2 (100.0%)	\$3.94M
Pediatric, Adolescent, and Young Adult Cancer	13	2 (15.4%)	\$5.33M
Pediatric Brain Tumor	7	2 (28.6%)	\$2.85M
Sarcoma	2	1 (50.0%)	\$0.50M
Stomach Cancer	2	2 (100.0%)	\$4.77M
Thyroid Cancer	0	0	\$0.00M
Von Hippel-Lindau Syndrome Malignancies (excluding cancers of the kidney and pancreases)	0	0	\$0.00M
Totals	121	29	\$50.43M

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 was conducted via teleconference for the CDA-FO, CDA-RO, and TTSA by 11 panels (65 scientists and 16 consumer reviewers) and for the PWSA by 3 panels (24 scientists and 4 consumer reviewers).

Each peer review panel included a Chair, an average of 6 scientific reviewers, an average of 1 consumer 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 December 2023 by the FY23 Programmatic Panel that was comprised of a diverse group of basic and clinical scientists and consumer advocates, each contributing special expertise or interest in cancer. 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 CDA PA were as follows: ratings and evaluations of the scientific peer review panels; adherence to the intent of the award mechanism; program portfolio composition; programmatic relevance to the FY23 PRCRP Military Health Focus Areas; programmatic relevance to the FY23 PRCRP Overarching Challenges; and relative impact. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.

Programmatic review criteria published in the PWSA PA were as follows: ratings and evaluations of the scientific peer review panels; adherence to the intent of the award mechanism; program portfolio composition; programmatic relevance to the FY23 PRCRP Military Health Focus Areas; programmatic relevance to the FY23 PRCRP Overarching Challenges; and relative impact on patient well-being, outcomes, and health. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.

Programmatic review criteria published in the TTSA PA were as follows: ratings and evaluations of the scientific peer review panels; adherence to the intent of the award mechanism; program portfolio composition; programmatic relevance to the FY23 PRCRP Military Health Focus Areas; programmatic relevance to the FY23 PRCRP Overarching Challenges; relative translational potential; and relative impact. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.