

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS
FISCAL YEAR 2023 (FY23) PEER REVIEWED 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 four award mechanisms released in April 2023:

- Advancing Cancer Care Through Clinical Trials (ACCCT) Award
- Idea Award (IA)
- Impact Award (IPA)
- Patient Well-Being and Survivorship Award (PWSA)

Principal Investigators (PIs) were asked to submit a letter of intent to submit a full application for the PWSA. Pre-applications were received for the remaining three PAs in May 2023 and screened in June - July 2023 to determine which investigators would be invited to submit a full application. Pre-applications were screened based on the evaluation criteria specified in the PAs.

Applications were received for the ACCCT Award, IA, and IPA PAs in September 2023 and peer reviewed in November 2023. Applications for the PWSA PA were received in August 2023 and they were peer reviewed in October 2023; due to an administrative error, one PWSA application was peer reviewed in January 2024. Programmatic review was conducted in January 2024.

In response to the ACCCT Award PA, 50 pre-applications were received and the PIs of 33 of these were invited to submit a full application. 26 compliant applications were received and 6 (23.1%) were recommended for funding for a total of \$24.9 million (M).

In response to the IA PA, 379 pre-applications were received and the PIs of 212 of these were invited to submit a full application. 186 compliant applications were received and 28 (15.1%) were recommended for funding for a total of \$17.3M.

In response to the IPA PA, 254 pre-applications were received and the PIs of 160 of these were invited to submit a full application. 140 compliant applications were received and 15 (10.7%) were recommended for funding for a total of \$22.6M.

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 during the Programmatic Review meeting held December 2023. The one PWSA application reviewed at the January 2024 meeting was not recommended for funding.

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	Pre-Applications Received	Pre-Applications Invited (%)	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
ACCCT Award	50	33 (66.0%)	26	6 (23.1%)	\$24.9M
IA	379	212 (55.9%)	186	28 (15.1%)	\$17.3M
IPA	254	160 (63.0%)	140	15 (10.7%)	\$22.6M
PWSA **	N/A	N/A	1	0 (0.0%)	\$0.0M
Total	683	405 (59.3%)	353	49 (13.9%)	\$64.8M

*These data reflect funding recommendations only. Pending FY23 award negotiations, final numbers will be available after September 30, 2024.

** Due to an administrative error, one PWSA application was peer and programmatically reviewed in January 2024.

Table 2. FY23 PRCRP Application Data by Topic Area

Topic Area	Compliant Applications	Applications Recommended for Funding (%)	Recommended Budget
Bladder Cancer	23	4 (17.4%)	\$6.3M
Blood Cancers	38	3 (7.9%)	\$6.2M
Brain Cancer	41	4 (9.8%)	\$5.8M
Colorectal Cancer	47	3 (6.4%)	\$7.2M
Endometrial Cancer	13	4 (30.8%)	\$4.3M
Esophageal Cancer	11	2 (18.2%)	\$1.8M
Germ Cell Cancers	5	1 (20.0%)	\$1.3M
Head and Neck Cancers	23	2 (8.7%)	\$2.0M
Liver Cancer	20	1 (5.0%)	\$1.6M
Lymphoma	15	4 (26.7%)	\$10.3M
Mesothelioma	7	1 (14.3%)	\$0.6M
Metastatic Cancers	6	1 (16.7%)	\$1.6M
Myeloma	15	3 (20.0%)	\$1.9M
Neuroblastoma	7	0 (0.0%)	\$0.0M
Pediatric, Adolescent, and Young Adult Cancer	20	7 (35.0%)	\$5.4M

Topic Area	Compliant Applications	Applications Recommended for Funding (%)	Recommended Budget
Pediatric Brain Tumor	20	3 (15.0 %)	\$2.0M
Sarcoma	28	3 (10.7%)	\$2.6M
Stomach Cancer	9	1 (11.1%)	\$1.8M
Thyroid Cancer	5	2 (40.0%)	\$2.0M
Von Hippel-Lindau Syndrome Malignancies (excluding cancers of the kidney and pancreases)	0	0 (0.0%)	\$0.0M
Total	353	49 (13.9%)	\$64.8M

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

ACCCT Award, IA, and IPA applications were peer reviewed in November 2023 by 32 panel(s) of researchers, clinicians, and consumer advocates based on the evaluation criteria specified in the PAs. The PWSA application was peer reviewed in January by one panel of researchers, clinicians, and consumer advocates based on the evaluation criteria specified in the PAs.

Peer review for the ACCCT Award was conducted by three panels during an on-site meeting. Across these 3 panels were 23 scientists and 3 consumer reviewers.

Peer Review for the IA and IPA was conducted via teleconference by 29 panels. Across these 29 panels were 202 scientists and 48 consumer reviewers.

Each peer review panel included a Chair, an average of seven scientific reviewers, an average of two consumer reviewers, 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 on January 31 – February 2, 2024 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 ACCCT Award PA were as follows: ratings and evaluations of the scientific peer review panels; programmatic relevance; 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 clinical care and patient impact. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.

Programmatic review criteria published in the IA PA were as follows: ratings and evaluations of

the scientific peer review panels; programmatic relevance; 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 innovation. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.

Programmatic review criteria published in the IPA PA were as follows: ratings and evaluations of the scientific peer review panels; programmatic relevance; 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 clinical care and patient 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.