

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)
FISCAL YEAR 2023 (FY23) BREAST CANCER RESEARCH PROGRAM (BCRP)**

DESCRIPTION OF REVIEW PROCEDURES

The programmatic strategy implemented by the FY23 BCRP called for applications in response to program announcements (PAs) for four award mechanisms released in February 2023:

- Breakthrough Award Levels 1 and 2
- Era of Hope Scholar Award
- Expansion Award
- Transformative Breast Cancer Consortium Development Award

Applications were received for these four PAs in April 2023 and peer reviewed in June 2023. Programmatic review (*Stage 1 for Era of Hope Scholar Award*) was conducted in August 2023.

In response to the Breakthrough Award Levels 1 and 2 PA, 424 compliant applications were received and 29 (6.8%) were recommended for funding for a total of \$44.4 million (M).

In response to the Era of Hope Scholar Award PA, eight compliant applications were received and one (12.5%) was recommended for invitation to Stage 2 programmatic review (oral application).

In response to the Expansion Award PA, 47 compliant applications were received and 7 (14.9%) were recommended for funding for a total of \$7.7M.

In response to the Transformative Breast Cancer Consortium Development Award PA, four compliant applications were received and one (25.0%) was recommended for funding for a total of \$162.0 thousand (K).

Submission and award data for the FY23 BCRP are summarized in the tables below.

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

Mechanism	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Breakthrough Award Level 1	244	12 (4.9%)	\$11,276,351
Breakthrough Award Level 2	180	17 (9.4%)	\$33,153,474
Expansion Award	47	7 (14.9%)	\$7,698,506
Transformative Breast Cancer Consortium Development Award	4	1 (25.0%)	\$162,000
Total	475	37 (7.8%)	\$52,290,331

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

Table 2. Submission/Award Data for the FY23 BCRP from Stage 1 Programmatic Review

Mechanism	Compliant Applications Received	Applications Recommended for Stage 2 Programmatic Review (%)
Era of Hope Scholar Award	8	1 (12.5%)

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

Breakthrough Award Levels 1 and 2, Expansion Award, Transformative Breast Cancer Consortium Development Award, and Era of Hope Scholar Award applications were peer reviewed in June 2023 by 28 panels of researchers, clinicians, and consumer advocates based on the evaluation criteria specified in the PAs.

Each peer review panel included a Chair, an average of six 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 the panel members then rated the applications confidentially.

Application Scoring

Evaluation Criteria Scores: The 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).

In contrast to the typical technical merit review process, no criteria scores were assigned to the Era of Hope Scholar Award applications. Instead, reviewers were asked to address specific questions pertaining to the applicant’s qualifications, accomplishments, research goals or ideas, and leadership skills. Each reviewer then voted confidentially on an overall level of enthusiasm (High, Medium, or Low).

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 of the Breakthrough Award Levels 1 and 2 was conducted in August 2023 by the FY23 Programmatic Panel and ad hoc reviewers. For the Expansion Award, Transformative Breast Cancer Consortium Development Award, and Era of Hope Scholar Award (Stage 1), programmatic review was conducted in August 2023 by the FY23 Programmatic Panel. The Programmatic Panel and ad hoc reviewers are a diverse group of scientists, clinicians, and consumer advocates, each contributing special expertise or interest in breast 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 Breakthrough Award Levels 1 and 2 PA were as follows: ratings and evaluations of the peer reviewers; adherence to the intent of the award mechanism; program portfolio composition; relative impact; and relative innovation (Breakthrough Award Level 1 only).

Programmatic review criteria published in the Expansion Award PA were as follows: ratings and evaluations of the peer reviewers; adherence to the intent of the award mechanism; program portfolio composition; relative accomplishments and outcomes from the original BCRP-funded award; and relative impact.

Programmatic review criteria published in the Transformative Breast Cancer Consortium Development Award PA were as follows: ratings and evaluations of the peer reviewers;

adherence to the intent of the award mechanism; program portfolio composition; and relative impact.

Programmatic review criteria published in the Era of Hope Scholar Award PA for Stage 1 were as follows: ratings and evaluations of the peer reviewers; relative innovation; and adherence to the intent of the award mechanism. For Stage 2, the criteria include: understanding of barriers in breast cancer; articulation of a realistic vision with a high potential to impact breast cancer; and leadership capabilities to form partnerships and collaborations that will impact breast cancer.

After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval. After Stage 2 programmatic review, the Era of Hope Scholar Award applications recommended for funding will be sent to the Commanding General, USAMRDC, for approval.