

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)
FISCAL YEAR 2024 (FY24) BREAST CANCER RESEARCH PROGRAM (BCRP)**

DESCRIPTION OF REVIEW PROCEDURES

The FY24 BCRP called for applications in response to program announcements (PAs) for four award mechanisms released in March and June 2024:

- Era of Hope Scholar Award (March and June 2024)
- Breakthrough Award Level 3 (March 2024)
- Breakthrough Award Level 4 (March 2024)
- Transformative Breast Cancer Consortium Award (March 2024)

The BCRP received pre-applications for the Breakthrough Award Level 3, the Breakthrough Award Level 4, and the Transformative Breast Cancer Consortium Award in May 2024 and screened them in June 2024. The screening followed the pre-application evaluation criteria specified in the PAs to determine which principal investigators (PI) to invite to submit full applications. The BCRP received applications in August 2024, and they underwent peer review in October 2024. The BCRP conducted programmatic review in December 2024.

The BCRP received applications for the March 2024 release of the Era of Hope Scholar Award PA in June 2024, and these applications underwent peer review in August 2024. For these applications, the BCRP conducted stage 1 programmatic review in October 2024 and stage 2 (oral presentation) programmatic review in December 2024. The BCRP received applications for the June 2024 release of the Era of Hope Scholar Award PA in August 2024, and these applications underwent peer review in October 2024. The BCRP conducted stage 1 programmatic review of these applications in December 2024.

In response to the Breakthrough Award Level 3 PA, the BCRP received 67 pre-applications and invited the PIs of 32 of these to submit a full application. The BCRP received 28 compliant applications and recommended funding four (representing eight awards) (14.3%) for a total of \$31.1 million (M).

In response to the Breakthrough Award Level 4 PA, the BCRP received ten pre-applications and invited the PIs of three of these to submit a full application. The BCRP received two compliant applications and one application was recommended for invitation to stage 2 (oral presentation) programmatic review.

In response to the Transformative Breast Cancer Consortium Award PA, the BCRP received four pre-applications and invited the PIs of two of these to submit a full application. The BCRP received one compliant application and did not recommend invitation to stage 2 (oral presentation) programmatic review.

In response to the March 2024 release of the Era of Hope Scholar Award PA, the BCRP received nine compliant applications, recommended two applications for invitation to stage 2 (oral presentation) programmatic review, and recommended funding one application (11.1%) for a total of \$5.54M. In response to the June 2024 release of the Era of Hope Scholar Award PA, the BCRP received three compliant applications, and no applications were recommended for invitation to stage 2 (oral presentation) programmatic review.

Tables 1, 2 and 3 show submission and award data summarized for the FY24 BCRP.

Table 1. Submission/Award Data for the FY24 BCRP*

| Mechanism | Pre-Applications Received | Pre-Applications Invited (%) | Compliant Applications Received | Applications Recommended for Funding (%) | Total Funds |
|----------------------------|---------------------------|------------------------------|---------------------------------|--|-------------|
| Breakthrough Award Level 3 | 67 | 32 (47.8%) | 28 | 4 (14.3%) | \$31.1M |

*These data reflect funding recommendations only. Pending FY24 award negotiations, final numbers will be available after September 30, 2025.

Table 2. Submission/Award Data for the FY24 BCRP from Stage 2 Programmatic Review*

| Mechanism | Compliant Applications Received | Applications Recommended for Stage 2 Programmatic Review (%) | Applications Recommended for Funding (%) | Total Funds |
|--|---------------------------------|--|--|-------------|
| Era of Hope Scholar Award [‡] | 9 | 2 (22.2%) | 1 (11.1%) | \$5.54M |

*These data reflect funding recommendations only. Pending FY24 award negotiations, final numbers will be available after September 30, 2025.

[‡]PA released in March 2024

Table 3. Submission/Award Data for the FY24 BCRP from Stage 1 Programmatic Review*

| Mechanism | Compliant Applications Received | Applications Recommended for Stage 2 Programmatic Review (%) |
|---|---------------------------------|--|
| Breakthrough Award Level 4 | 2 | 1 (50%) |
| Era of Hope Scholar Award [‡] | 3 | 0 (0%) |
| Transformative Breast Cancer Consortium Award | 1 | 0 (0%) |

[‡]PA released in June 2024

THE TWO-TIER REVIEW SYSTEM

The USAMRDC developed a review model based on recommendations 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 report recommended a two-tier

review process that reflects not only the traditional strengths of existing peer review systems but is also tailored to accommodate program goals. The Command adheres 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

The BCRP conducted peer review of the Breakthrough Award Level 3, the Breakthrough Award Level 4, the Transformative Breast Cancer Consortium Award, and the Era of Hope Scholar Award applications in August and October 2024, utilizing six panels of researchers, clinicians and consumer advocates. The panel members based their evaluations on the 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 panelists' primary responsibility 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. The panels discussed each individual application. The Chair called on 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 (Breakthrough Award Level 3, Breakthrough Award Level 4, and Transformative Breast Cancer Consortium Award): Panel members rated each application based on the peer review evaluation criteria published in the appropriate PA. The panel members used a scale of 10 to 1, with 10 representing the highest merit and 1 the lowest merit, using whole numbers only. The purpose of obtaining the criteria ratings was 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 (Breakthrough Award Level 3, Breakthrough Award Level 4, and Transformative Breast Cancer Consortium Award): To obtain an overall score, panel members used a range of 1.0 to 5.0 (1.0 representing the highest merit and 5.0 the lowest merit), with scoring permitted in 0.1 increments. The BCRP averaged the panel member scores and rounded them to arrive at a two-digit number (1.2, 1.9, 2.7, etc.) that corresponds to the following adjectival equivalents

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).

Era of Hope Scholar Award: In contrast to the typical technical merit review process, no criteria or overall 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. The BCRP staff used these documents to report the peer review results to the Programmatic Panel. In accordance with USAMRDC policy, Summary Statements are available to each applicant after completion of the review process.

THE SECOND TIER—Programmatic Review

The FY24 Programmatic Panel conducted stage 1 programmatic review of applications submitted to the March 2024 release of the Era of Hope Scholar Award PA in October 2024. The FY24 Programmatic Panel conducted programmatic review of applications submitted to the March and June 2024 releases of the Era of Hope Scholar Award PA (stage 2 and stage 1, respectively), the Breakthrough Award Level 3, the Breakthrough Award Level 4, and the Transformative Breast Cancer Consortium Award in December 2024. The panel included a diverse group of basic and clinical scientists and consumer advocates, each of whom contributed 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 received high scores in the technical merit review process; rather, they closely examine the eligible applications to allocate as wisely as possible the limited funds available.

The 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 (oral presentation), the criteria were: understanding of barriers in breast cancer; articulation of a realistic vision with a high potential to impact breast cancer; and leadership skills to develop a vision for preventing and treating breast cancer beyond the PI’s laboratory and institution.

The programmatic review criteria published in the Breakthrough Award Level 3 PA were as follows: ratings and evaluations of the scientific peer review panels, adherence to the intent award mechanism, program portfolio composition and relative impact.

The programmatic review criteria published in the Breakthrough Award Level 4 PA for stage 1 were as follows: ratings and evaluations of the peer reviewers; adherence to the intent of the funding opportunity; program portfolio composition and relative clinical impact. For stage 2 (oral presentation), the criteria were as follows: understanding of barriers to overcome in the

overarching challenge selected/identified; articulation of a realistic vision for transitioning the results of the project into a near-term clinical impact for individuals with, or at risk for, breast cancer; and capability to lead efforts to transform and revolutionize the clinical management and/or prevention of breast cancer.

The programmatic review criteria published in the Transformative Breast Cancer Consortium Award PA for stage 1 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. For stage 2 (oral presentation), the criteria were as follows: understanding of conceptual or intellectual or scientific barriers in breast cancer and articulation of how the consortium will address them; articulation of how the consortium's team-based approach will challenge existing paradigms or develop new paradigms that will fundamentally and significantly transform and disrupt the present breast cancer landscape; articulation of how the consortium will take a team-based, integrated approach and make a transformative impact in people's lives; and the consortium's capability to create an environment that fosters innovation.

After programmatic review, the BCRP sent the applications recommended for funding to the Commanding General, USAMRDC, for approval.