

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)
FISCAL YEAR 2024 (FY24) PEER REVIEWED ORTHOPAEDIC RESEARCH
PROGRAM (PRORP)**

DESCRIPTION OF REVIEW PROCEDURES

The FY24 PRORP called for applications in response to program announcements (PAs) for four award mechanisms released in May 2024:

- Applied Research Award (ARA)
- Clinical Trial Award (CTA)
- Clinical Translational Research Award (CTRA)
- Women’s Health Research Award (WHRA)

The PRORP received pre-applications for the ARA, CTA and CTRA in June 2024 and screened them in July 2024. The screening followed the pre-application evaluation criteria specified in the PAs to determine which investigators to invite to submit full applications. The PRORP received applications in September 2024, and they underwent peer review in November 2024. The PRORP conducted programmatic review in January 2025.

The PRORP received applications for the WHRA in September 2024, and they underwent peer review in November 2024. The PRORP conducted programmatic review in January 2025.

In response to the ARA PA, the PRORP received 96 pre-applications and invited 50 of these to submit a full application. The PRORP received 42 compliant applications and recommended funding three (7.1%) for a total of \$2.25 million (M).

In response to the CTA PA, the PRORP received 71 pre-applications and invited 47 of these to submit a full application. The PRORP received 34 compliant applications and recommended funding five (14.7%) for a total of \$12.44M.

In response to the CTRA PA, the PRORP received 52 pre-applications and invited 30 of these to submit a full application. The PRORP received 25 compliant applications and recommended funding three (12.0%) for a total of \$4.47M.

In response to the WHRA PA, the PRORP received 47 compliant applications and recommended funding three (6.4%) for a total of \$4.49M.

Table 1 shows submission and award data summarized for the FY24 PRORP.

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

| Mechanism | Pre-Applications Received | Pre-Applications Invited (%) | Compliant Applications Received | Applications Recommended for Funding (%) | Total Funds |
|------------------|----------------------------------|-------------------------------------|--|---|--------------------|
| ARA | 96 | 50 (52.1%) | 42 | 3 (7.1%) | \$2.25M |
| CTA | 71 | 47 (66.2%) | 34 | 5 (14.7%) | \$12.44M |
| CTRA | 52 | 30 (57.7%) | 25 | 3 (12.0%) | \$4.47M |
| WHRA | N/A [‡] | N/A [‡] | 47 | 3 (6.4%) | \$4.49M |
| Total | 219 | 126 (57.5%) | 148 | 14 (9.5%) | \$23.65M |

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

[‡]Letters of Intent received at the pre-application stage.

Table 2. FY24 PRORP Application Data by Focus Area*

| Focus Area | Compliant Applications Received | Applications Recommended for Funding (%) | Total Funds |
|---|--|---|--------------------|
| Limb Stabilization and Protection | 3 | 0 | 0 |
| Retention Strategies-Battlefield Care | 9 | 1 (11.1%) | \$0.75M |
| Retention Strategies-Return to Duty | 35 | 4 (11.4%) | \$6.94M |
| Osseointegration | 14 | 1 (7.1%) | \$0.75M |
| Composite Tissue Regeneration | 22 | 1 (4.5%) | \$0.75M |
| Translation of Early Research Findings-Soft Tissue Trauma | 1 | 0 | 0 |
| Translation of Early Research Findings-Fracture Related Infection | 6 | 1 (16.7%) | \$2.50M |
| Prostheses and Orthoses | 9 | 3 (33.3%) | \$7.47M |
| Volumetric Muscle Loss | 2 | 0 | 0 |
| Totals | 101 | 11 (10.9%) | \$19.16M |

*The WHRA did not require applications to address a focus area.

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 PRORP conducted peer review of the ARA, CTA, CTRA and WHRA applications in November 2024 utilizing 11 panels of researchers, clinicians and consumer advocates. The panel members based their evaluations on the criteria specified in the PAs.

The PRORP conducted peer review for the ARA utilizing three panels during a teleconference meeting. The three panels consisted of 18 scientists and three consumer reviewers.

The PRORP conducted peer review for the CTA utilizing four panels during a teleconference meeting. The four panels consisted of 20 scientists and four consumer reviewers.

The PRORP conducted peer review for the CTRA utilizing two panels during a teleconference meeting. The two panels consisted of 11 scientists and two consumer reviewers.

The PRORP conducted peer review for the WHRA utilizing three panels during a teleconference meeting. The three panels consisted of 19 scientists and five consumer reviewers.

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: 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: 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 PRORP 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).

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 the panel discussions. The PRORP staff used this document 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 programmatic review in January 2025. The panel included a diverse group of pre-clinical and clinical scientists, clinicians, federal and military stakeholders, and consumer advocates, each of whom contributed special expertise or interest in orthopaedic injuries and research. 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 PAs were as follows: ratings and evaluations of the scientific peer review panels, adherence to the intent of the award mechanism, program portfolio composition, relative [clinical] impact and military benefit, and regulatory and developmental risk (CTA only). After programmatic review, the PRORP sent the applications recommended for funding to the Commanding General, USAMRDC, for approval.