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

DESCRIPTION OF REVIEW PROCEDURES

The FY24 PRMRP called for applications in response to program announcements (PAs) for two award mechanisms released in March 2024:

- Discovery Award
- Investigator-Initiated Research Award

The PRMRP received applications for these two PAs in May 2024, and they underwent peer review in July 2024. The PRMRP conducted programmatic review in September 2024.

In response to the Discovery Award PA, the PRMRP received 267 compliant applications and recommended funding 41 (15.36%) for a total of \$16.88 million (M).

In response to the Investigator-Initiated Research Award PA, the PRMRP received 291 compliant applications and recommended funding 27 (9.27%) for a total of \$41.16M.

Tables 1 and 2 show submission and award data summarized for the FY24 PRMRP.

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

Mechanism	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Discovery Award	267	41 (15.36%)	\$16.88M
Investigator-Initiated Research Award	291	27 (9.27%)	\$41.16M
Totals	558	68 (12.19%)	\$58.04M

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

Table 2. FY24 PRMRP Application Data by Topic Area

Topic Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Accelerated Aging Processes Associated with Military Service	27	2 (7.4%)	\$0.80M
Celiac Disease	12	1 (8.3%)	\$1.58M

Topic Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Computational Biology for	28	0	_
Precision Health	10	2 (20 00()	Φ0.713.6
Congenital Cytomegalovirus	10	2 (20.0%)	\$0.71M
Congenital Heart Disease	17	1 (5.9%)	\$0.36M
Dystonia	8	0	_
Eating Disorders	4	0	
Ehlers-Danlos Syndrome	4	2 (50.0%)	\$1.93M
Epidermolysis Bullosa	2	1 (50.0%)	\$0.29M
Far-UVC Germicidal Light	2	0	_
Fibrous Dysplasia/McCune- Albright Syndrome	1	0	_
Focal Segmental Glomerulosclerosis	5	3 (60.0%)	\$3.66M
Food Allergies	2	0	_
Fragile X	10	0	_
Frontotemporal Degeneration	3	1 (33.3%)	\$0.30M
Guillain-Barre Syndrome	3	0	_
Hepatitis B	6	1 (16.7%)	\$0.30M
Hereditary Ataxia	17	2 (11.8%)	\$2.09M
Hydrocephalus	10	1 (10.0%)	\$1.57M
Inflammatory Bowel Disease	40	3 (7.5%)	\$2.50M
Interstitial Cystitis	3	2 (66.7%)	\$1.92M
Lymphedema	10	2 (20.0%)	\$2.02M
Malaria	18	4 (22.2%)	\$2.32M
Maternal Mental Health	4	1 (25.0%)	\$0.99M
Mitochondrial Disease	10	0	_
Musculoskeletal Disorders Related to Acute and Chronic Bone Conditions and Injuries	53	6 (11.3%)	\$4.91M
Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome	10	1 (10.0%)	\$0.39M
Myotonic Dystrophy	5	1 (20.0%)	\$0.43M
Nephrotic Syndrome	5	1 (20.0%)	\$0.42M
Neuroactive Steroids	2	1 (50.0%)	\$0.38M
Pancreatitis	9	2 (22.2%)	\$2.10M
Peripheral Neuropathy	25	3 (12.0%)	\$3.11M
Polycystic Kidney Disease	35	3 (8.6%)	\$3.49M
Proteomics	26	5 (19.2%)	\$3.26M
Pulmonary Fibrosis	30	2 (6.7%)	\$0.84M
Respiratory Health	57	4 (7.0%)	\$4.09M
Rett Syndrome	3	2 (66.7%)	\$3.22M
Scleroderma	5	2 (40.0%)	\$1.72M

Topic Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Sickle-cell Disease	9	1 (11.1%)	\$1.79M
Suicide Prevention	9	1 (11.1%)	\$0.40M
Vascular Malformations	13	2 (15.4%)	\$2.06M
Von Hippel-Lindau Syndrome	6	2 (33.3%)	\$2.10M
Totals	558	68 (12.2%)	\$58.04M

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 PRMRP conducted peer review of Discovery Award and Investigator-Initiated Research Award applications via videoconference in July 2024 utilizing 46 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 one consumer reviewer, 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: 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 PRMRP 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 panel discussions. The PRMRP 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 and ad hoc reviewers conducted programmatic review in September 2024. The panel included a diverse group of basic and clinical scientists from each branch of the military Services, the Defense Health Agency, the Department of Veterans Affairs, the Department of Health and Human Services, academic institutions, and private industry. 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 Discovery Award and Investigator-Initiated Research Award PAs were as follows: adherence to the intent of the award mechanism, relative innovation (Discovery Award only), relative impact, relevance to the FY24 PRMRP Topic Areas, relevance to the FY24 PRMRP Strategic Goals, relevance to military health, and program portfolio composition. If applicable, relative outcomes from the PI's previous CDMRP-/PRMRP-funded research was considered in the programmatic review criteria for applications submitted under the Investigator-Initiated Research Award. After programmatic review, the PRMRP sent the applications recommended for funding to the Commanding General, USAMRDC, for approval.