

**US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND (USAMRDC)
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)
FISCAL YEAR 2022 (FY22) LUNG CANCER RESEARCH PROGRAM (LCRP)**

DESCRIPTION OF REVIEW PROCEDURES

The programmatic strategy implemented by the FY22 LCRP called for applications in response to program announcements (PAs) for three award mechanisms released in March 2022:

- Clinical Translational Research Partnership Award
- Idea Development Award (New and Established Investigator Options)
- Investigator-Initiated Translational Research Award

Pre-applications were received for the Idea Development Award and Investigator Initiated-Translational Research Award PAs in May 2022. Letters of Intent (LOIs) were received for the Clinical Translational Research Partnership Award in July 2022.

Applications were received for the Idea Development Award, Investigator-Initiated Translational Research Award, and Clinical Translational Research Partnership Award in July 2022 and peer reviewed in September 2022. Programmatic review was conducted in December 2022.

In response to the Clinical Translational Research Partnership Award PA, 15 compliant, partnered LOIs were received. A total of seven compliant, partnered applications were received, and no awards were recommended for funding.

In response to the Idea Development Award PA, 194 pre-applications were received, and the Principal Investigators (PIs) of 125 of these were invited to submit a full application. The LCRP received 110 compliant applications, and 19 (17.3%) were recommended for funding for a total of \$10.2 million (M).

In response to the Investigator-Initiated Translational Research Award PA, 52 pre-applications were received, and the PIs of 41 of these were invited to submit a full application. The LCRP received 38 compliant applications, and 5 (13.2%) were recommended for funding for a total of \$4.8M.

Submission and award data for the FY22 LCRP are summarized in the table(s) below.

Table 1. Submission/Award Data for the FY22 LCRP*

Mechanism	Pre-Applications Invited	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Clinical Translational Research Partnership Award	15 ^{†‡}	7 ^{**}	0 (0%)	\$0
Idea Development Award	125	110	19 (17.3%)	\$10.2M

Mechanism	Pre-Applications Invited	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Investigator-Initiated Translational Research Award	41	38	5 (13.2%)	\$4.8M
Total	181^{††}	155^{**}	24 (15.5%)	\$15.0M

*These data reflect funding recommendations only. Pending FY22 award negotiations, final numbers will be available after September 30, 2023.

[†] LOIs.

[‡]15 applications representing 30 potential awards.

^{**}7 applications representing 14 potential awards.

^{††} 181 applications representing 196 potential awards.

^{**}155 applications representing 162 potential awards.

Table 2. FY22 LCRP Application Data by Topic Area

Topic Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Identify Innovative strategies for prevention of the occurrence of lung cancer.	5	0 (0%)	\$0M
Identify innovative strategies for the screening and early detection of lung cancer.	12	2 (16.7%)	\$1.3M
Understand the molecular mechanisms of initiation and progression to lung cancer.	16	3 (18.8%)	\$1.7M
Understand contributors to lung cancer development other than tobacco.	9	1 (11.1%)	\$0.5M
Identify innovative strategies for the treatment of lung cancer	80	14 (17.5%)	\$8.8M
Identify innovative strategies for the prevention of recurrence of or metastases from lung cancer.	11	2 (18.2%)	\$1.6M
Develop or optimize biomarkers to assist with therapeutic decision-making.	14	0 (0%)	\$0M
Understand mechanisms of resistance to treatment (primary and secondary).	8	2 (25.0%)	\$1.1M
Identify innovative strategies for comprehensive lung cancer care (clinical management/surveillance/symptom management/palliative care).	5	0 (0%)	\$0M

Topic Area	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Understand factors and/or develop implementation strategies to address health disparities in lung cancer.	2	0 (0%)	\$0M
Totals***	162 applications	24 (14.8%)	\$15.0M

***The data in this table reflect the total number of applications.

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

Idea Development Award, Investigator-Initiated Translational Research Award, and Clinical Translational Research Partnership Award applications were peer reviewed in September 2022 by nine panels of researchers, clinicians, and consumer advocates based on the evaluation criteria specified in the PAs.

Each peer review panel included a Chair, scientific reviewers, 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 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 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 in December 2022 by the FY22 Programmatic Panel, which is comprised of a diverse group of basic and clinical scientists and consumer advocates, each contributing special expertise or interest in lung 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. The programmatic review criteria published in the PAs were as follows: ratings and evaluations of the peer reviewers; programmatic relevance; adherence to the intent of the award mechanism; program portfolio composition; and relative impact, innovation, and relevance to military health. After programmatic review, the applications recommended for funding were sent to the Commanding General, USAMRDC, for approval.