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 two award mechanisms released in March 2022:

- Career Development Award
- Concept Award (both Cancer Research Continuum Option and Care Delivery and Health Care Disparity Options)

Letters of Intent (LOIs) were received for the Career Development Award and Concept Award in May 2022.

Applications were received for the Concept Award and Career Development Award PAs in May 2022, and they were peer reviewed in July. Programmatic review was conducted in August 2022.

In response to the Career Development Award PA, 20 LOIs were received; 16 compliant applications were received, of which 3 (18.8%) were recommended for funding for a total of $1.18 million (M).

In response to the Concept Award-Cancer Research Continuum Option PA, 135 LOIs were received; 111 compliant applications were received, of which 11 (9.9%) were recommended for funding for a total of $1.66M.

In response to the Concept Award-Care Delivery and Health Care Disparity Option PA, eight LOIs were received; seven compliant applications were received, of which one (14.3%) was recommended for funding for a total of $0.15M.

Submission/award and award data for the FY22 LCRP Concept Award and Career Development Award are summarized in the tables below.

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

Mechanism	LOIs Received	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Career Development Award	20	16	3 (18.8%)	$1.18M
Concept Award-Cancer Research Continuum Option	135	111	11 (9.9%)	$1.66M

Mechanism	LOIs Received	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Concept Award-Care Delivery and Health Disparity Option	8	7	1 (14.3%)	$0.15M
Total	**163**	**134**	**15 (11.2%)**	**$2.99M**

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

Table 2. FY22 LCRP Application Data by Area of Emphasis 1**

Area of Emphasis	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Identify Innovative strategies for prevention of the occurrence of lung cancer.	5	0 (0%)	$0.00M
Identify innovative strategies for the screening and early detection of lung cancer.	6	0 (0%)	$0.00M
Understand the molecular mechanisms of initiation and progression to lung cancer.	22	4 (18.2%)	$0.58M
Understand contributors to lung cancer development other than tobacco.	2	0 (0%)	$0.00M
Identify innovative strategies for the treatment of lung cancer	57	8 (14.0%)	$1.37M
Identify innovative strategies for the prevention of recurrence of or metastases from lung cancer.	19	1 (5.3%)	$0.44M
Develop or optimize biomarkers to assist with therapeutic decision-making.	7	0 (0%)	$0.00M
Understand mechanisms of resistance to treatment (primary and secondary).	8	2 (25.0%)	$0.60M
Identify innovative strategies for comprehensive lung cancer care (clinical management/surveillance/ symptom management/palliative care).	2	0 (0%)	$0.00M
Understand factors and/or develop implementation strategies to address health disparities in lung cancer.	6	0 (0%)	$0.00M
Totals	**134**	**15 (11.2%)**	**$2.99M**

**The Area of Emphasis was selected by the applicant at the time of submission.

Table 3. FY22 LCRP Application Data by Area of Emphasis 2[***]

Area of Emphasis	Compliant Applications Received	Applications Recommended for Funding (%)	Total Funds
Identify Innovative strategies for prevention of the occurrence of lung cancer.	1	0 (0%)	$0.00M
Identify innovative strategies for the screening and early detection of lung cancer.	1	0 (0%)	$0.00M
Understand the molecular mechanisms of initiation and progression to lung cancer.	6	1 (16.7%)	$0.15M
Understand contributors to lung cancer development other than tobacco.	4	1 (25.0%)	$0.15M
Identify innovative strategies for the treatment of lung cancer	17	0 (0.0%)	$0.00M
Identify innovative strategies for the prevention of recurrence of or metastases from lung cancer.	9	2 (22.2%)	$0.54M
Develop or optimize biomarkers to assist with therapeutic decision-making.	11	1 (9.1%)	$0.30M
Understand mechanisms of resistance to treatment (primary and secondary).	8	3 (37.5%)	$0.71M
Identify innovative strategies for comprehensive lung cancer care (clinical management/surveillance/ symptom management/palliative care).	1	1 (100.0%)	$0.15M
Understand factors and/or develop implementation strategies to address health disparities in lung cancer.	0	0 (0%)	$0.00M
Not selected.	76	6 (7.9%)	$0.99M
Totals	**134**	**15 (11.2%)**	**$2.99M**

[***]The Area of Emphasis was selected by the applicant at the time of submission or by CDMRP staff after review. The applicant was only required to choose one Area of Emphasis and had the option of choosing a second. This table reports the second Area of Emphasis chosen by the applicant if provided.

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

Concept Award applications were peer reviewed online in June 2022 by four panels of researchers, clinicians, and consumer advocates based on the evaluation criteria specified in the PA. Career Development Award applications were peer reviewed in July 2022 by one panel of researchers, clinicians, and consumer advocates based on the evaluation criteria specified in the PA.

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, Programmatic Panel, and 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 essence of the 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 August 2022 by the FY22 Programmatic Panel, which is comprised of a diverse group of scientists, clinicians, 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. Programmatic review criteria published in the PAs were as follows: ratings and evaluations of the scientific peer review panels; programmatic relevance; 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.