#### I. OVERVIEW OF THE FUNDING OPPORTUNITY

Program Announcement for the Department of Defense

**Defense Health Program** 

**Congressionally Directed Medical Research Programs** 

# **Lung Cancer Research Program**

#### **Translational Research Award**

**Announcement Type: Initial** 

Funding Opportunity Number: HT942524LCRPTRA

Assistance Listing Number: 12.420 Military Medical Research and Development

#### SUBMISSION AND REVIEW DATES AND TIMES

- **Pre-Application (Preproposal) Submission Deadline:** 5:00 p.m. Eastern time (ET), May 28, 2024
- Invitation to Submit an Application: July 2024
- Application Submission Deadline: 11:59 p.m. ET, August 7, 2024
- End of Application Verification Period: 5:00 p.m. ET, August 12, 2024
- Peer Review: October 2024
- Programmatic Review: December 2024

This program announcement must be read in conjunction with the General Application Instructions, version 901. The General Application Instructions document is available for downloading from the Grants.gov funding opportunity announcement by selecting the "Package" tab, clicking "Preview," and then selecting "Download Instructions."

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# II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

#### **II.A. Program Description**

The U.S. Army Medical Research Acquisition Activity (USAMRAA) is soliciting applications to the fiscal year 2024 (FY24) Lung Cancer Research Program (LCRP) using delegated authority provided by United States Code, Title 10, Section 4001 (10 USC 4001). The Congressionally Directed Medical Research Programs (CDMRP) at the U.S. Army Medical Research and Development Command (USAMRDC) is the program management agent for this funding opportunity. Congress initiated the LCRP in FY09 to promote innovative and competitive research focused on the development of integrated disciplines to identify, treat, and manage early curable lung cancer (excluding mesothelioma). Appropriations for the LCRP from FY09 through FY23 totaled \$220.5 million (M). The FY24 appropriation is \$25.0M.

The vision of the FY24 LCRP is to eradicate deaths and suffering from lung cancer to better the health and welfare of Service Members, Veterans, and the general public. As such, the LCRP will support and integrate research from multiple disciplines for risk assessment, prevention, early detection, diagnosis, management, and treatment for the control and cure of lung cancer.

#### II.A.1. LCRP Strategic Plan

The LCRP has prepared a brief synopsis, the LCRP Strategic Plan, which provides the background and an overview of the LCRP, describes the research and funding environment, and sets forth the strategic direction for the program. Applicants are strongly urged to read and consider the LCRP Strategic Plan before preparing their applications. The LCRP Strategic Plan may be found at <a href="https://cdmrp.health.mil/lcrp/pdfs/LCRP">https://cdmrp.health.mil/lcrp/pdfs/LCRP</a> Strategic Plan 30Aug21 FINAL.pdf.

#### II.A.2. FY24 LCRP Areas of Emphasis

To meet the intent of the funding opportunity, all applications must address at least one Area of Emphasis in a way that can lead to, or directly effect, a breakthrough and have a major impact. The LCRP developed a strategy to address multiple issues in lung cancer research over the cancer continuum of care spectrum that will be considered for funding under the LCRP. These Areas of Emphasis are critical gaps in cancer research, care, and/or patient outcomes that, if addressed will lead to reduced suffering from lung cancer and improved quality of life of Service Members, Veterans, and the general public. Simply identifying an Area of Emphasis is not sufficient.

#### Biology and Etiology

- Understand the molecular mechanisms of initiation and progression to lung cancer.
- o Understand contributors to lung cancer development other than tobacco.
- Understand the biology of metastatic/oligometastatic disease progression.

#### Prevention

- Identify innovative strategies for prevention of the occurrence of lung cancer(s) or subsequent primaries.
- Identify innovative strategies for the prevention of recurrence or metastases from lung cancer.

#### • Detection, Diagnosis, and Surveillance

- o Improve and expand approaches to screening and early detection of lung cancer.
- o Identify strategies for prompt detection and/or characterization of progressive disease.

#### Treatment and Prognosis

- Identify innovative strategies for the treatment of lung cancer, including overcoming resistance.
- o Develop or optimize biomarkers to assist with therapeutic decision-making.
- Enhance the understanding, detection, and treatment of brain and leptomeningeal metastases in lung cancer.

#### Health Outcomes and Survivorship

- Identify and understand the long-term and cumulative effects of lung cancer and its treatment(s) on patients, families, and support systems with respect to the impact on quality of life including, but not limited to, physiological, psychosocial, cognitive, and financial effects.
- Identify and understand impact of comorbidities on survivorship care in all stages of lung cancer.

#### Disparities

 Advance equity and reduce lung cancer disparities among underserved and underrepresented populations.

#### **II.B.** Award Information

The FY24 LCRP Translational Research Award mechanism supports advanced translational research that will foster transformation of promising ideas in lung cancer into clinical applications. Translational research may be defined as an integration of basic science and clinical observations. Observations that drive a research idea may originate from a laboratory discovery, population-based studies, or a clinician's firsthand knowledge of patient care. The ultimate goal of translational research is to move a concept or observation forward into clinical application. However, Principal Investigators (PIs) should not view translational research as a

one-way continuum from bench to bedside but can include a reciprocal flow of ideas and information between basic science and clinical science (bench to bedside and/or bedside to bench). *Research applications only in the area of mesothelioma will not be accepted.* This mechanism is intended to fund a broad range of translational studies with two different funding levels. The following are general examples, although not all-inclusive, of the type of research projects that would be appropriate to propose under the current program announcement:

#### **Funding Level 1:**

- Advanced preclinical studies aimed at translating results from animal studies to applications
  with human samples/cohorts (The Translational Research Award is not intended to support
  initial mechanistic studies of a new target.)
- Late-stage preclinical work leading to/preparing for a clinical trial, e.g., Investigational New Drug (IND) application submission
- Correlative studies that are associated with an open/ongoing or completed clinical trial, e.g., projects that utilize biospecimens from clinical trials to improve clinical management of lung cancer and/or define new areas of research
- Projects that develop endpoints for clinical trials

## **Funding Level 2**

• Pilot clinical trials where limited clinical testing (e.g., small sample size) of a novel intervention is necessary to inform the next step in the continuum of translational research

Preliminary lung cancer relevant data to support the feasibility of the research hypotheses and research approaches are required.

Relevance to Military Health: The LCRP seeks to support research that is relevant to the health care needs of military Service Members, Veterans, and their Families. Relevance to military health will be considered in determining relevance to the mission of the Defense Health Program (DHP) and FY24 LCRP during programmatic review. Investigators are strongly encouraged to consider the following characteristics as examples of how a project may demonstrate relevance to military health:

- Use of military or Veteran populations, biospecimens, data/databases, or programs in the proposed research
- Collaboration with Department of Defense (DOD) or Department of Veterans Affairs (VA) investigators
- Explanation of how the project addresses an aspect of lung cancer that has relevance or is unique to the military, Veterans, other Military Health System (MHS) beneficiaries, or Family readiness of Service Members, including environmental exposures other than tobacco

All investigators applying to FY24 LCRP funding opportunities are encouraged to consider leveraging resources from the LCRP-funded Lung Cancer Biospecimen Resource Network (LCBRN) if retrospectively collected human anatomical substances and correlated clinical data are relevant to the proposed studies. Samples from the LCBRN are currently available through the Cooperative Human Tissue Network (CHTN). To request LCBRN samples, contact the Division Coordinator for the CHTN Mid-Atlantic division (email: <a href="CHTN-MidAtl@hscmail.mcc.virginia.edu">CHTN-MidAtl@hscmail.mcc.virginia.edu</a>) located at the University of Virginia.

A congressionally mandated Metastatic Cancer Task Force was formed with the purpose of identifying ways to help accelerate clinical and translational research aimed at extending the lives of advanced state and recurrent patients. As a member of the Metastatic Cancer Task Force, the CDMRP encourages applicants to review the recommendations (<a href="https://health.mil/Reference-Center/Congressional-Testimonies/2018/05/03/Metastatic-Cancer-Research">https://health.mil/Reference-Center/Congressional-Testimonies/2018/05/03/Metastatic-Cancer-Research</a>) and submit research ideas to address these recommendations provided they are within the limitations of this funding opportunity and fit within the FY24 LCRP priorities.

Applications from investigators within the military services and applications involving multidisciplinary collaborations among academia, industry, the military services, the VA, and other federal government agencies are highly encouraged. These relationships can leverage knowledge, infrastructure, and access to unique clinical populations that the collaborators bring to the research effort, ultimately advancing research that is of significance to Service Members, Veterans, and/or their Families. If the proposed research relies on access to unique resources or databases, the application must describe the access at the time of submission and include a plan for maintaining access as needed throughout the proposed research.

Innovative research involving nuclear medicine and related techniques to support early diagnosis, more effective treatment, and improved health outcomes of active-duty Service Members and their Families is encouraged. Such research could improve diagnostic and targeted treatment capabilities through noninvasive techniques and may drive the development of precision imaging and advanced targeted therapies.

CDMRP encourages research on health areas and conditions that affect women uniquely, disproportionately, or differently from men, including studies analyzing sex as a biological variable. Such research should relate anticipated project findings to improvements in women's health outcomes and/or advancing knowledge for women's health.

All projects should adhere to a core set of standards for rigorous study design and reporting to maximize the reproducibility and translational potential of clinical and preclinical research. The standards are described in SC Landis et al., 2012, A call for transparent reporting to optimize the predictive value of preclinical research, *Nature* 490:187-191 (<a href="http://www.nature.com/nature/journal/v490/n7419/full/nature11556.html">http://www.nature.com/nature/journal/v490/n7419/full/nature11556.html</a>). While these standards are written for preclinical studies, the basic principles of randomization, blinding, sample-size estimation, and data handling derive from well-established best practices in clinical studies.

*A clinical trial is defined* in the Code of Federal Regulations (CFR), Title 45, Part 46.102 (45 CFR 46.102) as a research study in which one or more human subjects are prospectively

assigned to one or more interventions (which may include a placebo or another control) to evaluate the effects of the interventions on biomedical or behavioral health-related outcomes.

Studies that do not seek to measure safety, effectiveness, and/or efficacy outcome(s) of an intervention are not considered clinical trials.

For the purposes of this funding opportunity, research that meets the definition of a clinical trial is distinct from clinical research. Clinical research encompasses research with human data, human specimens, and/or interaction with human subjects. Clinical research is observational in nature and includes:

- (1) Research conducted with human subjects and/or material of human origin such as data, specimens, and cognitive phenomena for which an investigator (or co-investigator) does *not* seek to assess the safety, effectiveness, and/or efficacy outcomes of an intervention. Research meeting this definition may include but is not limited to: (a) mechanisms of human disease, (b) diagnostic or detection studies (e.g., biomarker or imaging), (c) health disparity studies, and (d) development of new technologies.
- (2) Epidemiologic and behavioral studies that do *not* seek to assess the safety, effectiveness, and/or efficacy outcomes of an intervention.
- (3) Outcomes research and health services research that do not fit under the definition of clinical trial.

Excluded from the definition of clinical research are in vitro studies that utilize human data or specimens that cannot be linked to a living individual and meet the requirements for exemption under §46.104(d)(4) of the Common Rule.

The funding instrument for awards made under the program announcement will be grants (31 USC 6304).

The anticipated direct costs budgeted for the entire period of performance for an FY24 LCRP Translational Research Award – Funding Level 1 should not exceed \$900,000.

The anticipated direct costs budgeted for the entire period of performance for an FY24 LCRP Translational Research Award – Funding Level 2, Clinical Trial, should not exceed \$1.2M. Refer to Section II.D.5, Funding Restrictions, for detailed funding information.

Awards supported with FY24 funds will be made no later than September 30, 2025.

The CDMRP expects to allot approximately \$7.68M to fund approximately five Translational Research Award applications. Funding of applications received is contingent upon the availability of federal funds for this program, the number of applications received, the quality and merit of the applications as evaluated by peer and programmatic review, and the requirements of the government. Funds to be obligated on any award resulting from this funding opportunity will be available for use for a limited time period based on the fiscal year of the funds. It is anticipated that awards made from this FY24 funding opportunity will be funded with FY24 funds, which will expire for use on September 30, 2030.

# **II.C.** Eligibility Information

#### **II.C.1.** Eligible Applicants

**II.C.1.a. Organization:** Extramural and Intramural organizations are eligible to apply, including foreign or domestic organizations, for-profit and non-profit organizations, and public entities.

**Extramural Organization:** An eligible non-DOD organization. Examples of extramural organizations include academic institutions, biotechnology companies, foundations, federal government organizations other than the DOD (i.e., intragovernmental organizations), and research institutes.

**Intramural DOD Organization:** Refers specifically to DOD organizations including DOD laboratories, DOD military treatment facilities, and/or DOD activities embedded within a civilian medical center.

Awards are made to eligible *organizations*, not to individuals. Refer to the General Application Instructions, Appendix 1, for additional recipient qualification requirements.

#### II.C.1.b. Principal Investigator

The PI must be at or above the level of Assistant Professor (or equivalent).

An eligible PI, regardless of ethnicity, nationality, or citizenship status, must be employed by or affiliated with an eligible organization.

#### **II.C.2.** Cost Sharing

Cost sharing/matching is not an eligibility requirement.

#### II.C.3. Other

Organizations must be able to access .gov and .mil websites to fulfill the financial and technical deliverable requirements of the award and submit invoices for payment.

Refer to Section II.H.2, Administrative Actions, for a list of administrative actions that may be taken if a pre-application or full application does not meet the administrative, eligibility, or ethical requirements defined in this program announcement.

# **II.D.** Application and Submission Information

#### **II.D.1.** Location of Application Package

Submission is a two-step process requiring both a *pre-application* submitted via the Electronic Biomedical Research Application Portal (eBRAP.org) and a *full application* (eBRAP.org or Grants.gov). Depending on the type of submission (i.e., extramural vs. intramural), certain aspects of the submission process will differ.

The CDMRP uses two portal systems to accept pre- and full application submissions.

**eBRAP** (<a href="https://ebrap.org">https://ebrap.org</a>) is a secure web-based system that allows PIs and/or organizational representatives from both extra- and intramural organizations to receive communications from the CDMRP and submit their pre-applications. Additionally, eBRAP allows extramural applicants to view and verify full applications submitted to Grants.gov and allows intramural DOD applicants to submit and verify full applications following their pre-application submission.

**Grants.gov** (<a href="https://grants.gov">https://grants.gov</a>) is a federal system that must be used by funding agencies to announce extramural grant applications. Full applications for CDMRP funding opportunities can only be submitted to Grants.gov after submission of a pre-application through eBRAP.

# Step1: Submit Pre-Application (Extramural and Intramural Submissions) Preproposal Submitted Through eBRAP Receive Invitation to Submit Full Application Step 2: Submit Full Application Extramural Submission Submitted Through Grants.gov Intramural Submission Submitted Through eBRAP Verify Application Content in eBRAP

Application Submission Workflow

**Extramural Submission:** An application submitted by an <u>extramural organization</u> for an extramural or intramural PI working within an extramural or intramural organization. For example, a research foundation submitting an application for a DOD employee working within a DOD organization would be considered an extramural submission and should follow instructions specific to extramural submissions.) Download application package components for HT942524LCRPTRA from Grants.gov (<a href="https://grants.gov">https://grants.gov</a>). Full applications from extramural organizations *must* be submitted through Grants.gov.

**Intramural Submission:** An application submitted by an <u>intramural DOD organization</u> for an investigator employed by that organization. Intramural DOD organizations <u>may</u> submit full applications to either eBRAP or Grants.gov. Download application package components for

HT942524LCRPTRA from the anticipated submission portal eBRAP (<a href="https://ebrap.org">https://ebrap.org</a>) or Grants.gov.

The submission process should be started early to avoid missing deadlines. Regardless of submission type or portal used, all pre- and full application components must be submitted by the deadlines stipulated on the first page of this program announcement. There are no grace periods for deadlines; failure to meet submission deadlines will result in application rejection. *The USAMRAA cannot make allowances/exceptions for submission problems encountered by the applicant organization using system-to-system interfaces with Grants.gov.* 

#### **II.D.2.** Content and Form of the Application Submission

Submitting applications that propose essentially the same research project to different funding opportunities within the same program and fiscal year is prohibited and will result in administrative withdrawal of the duplicative application(s).

Unnecessary duplication of funding, or accepting funding from more than one source for the same research, is prohibited. See the CDMRP's full position on research duplication at <a href="https://cdmrp.health.mil/funding/researchDup">https://cdmrp.health.mil/funding/researchDup</a>.

Including classified research data within the application and/or proposing research that may produce classified outcomes, or outcomes deemed sensitive to national security concerns, may result in application withdrawal. Refer to the General Application Instructions, Appendix 7, Section B.

FY24 LCRP Programmatic Panel members should not be involved in any pre-application or full application. For questions related to panel members and pre-applications or applications, refer to Section II.H.2.c, Withdrawal, or contact the eBRAP Help Desk at help@eBRAP.org or 301-682-5507.

#### II.D.2.a. Step 1: Pre-Application Submission

All pre-application components must be submitted by the PI through eBRAP (https://eBRAP.org/).

During the pre-application process, eBRAP assigns each submission a unique log number. This unique log number is required during the full application submission process. The eBRAP log number, application title, and all information for the PI, Business Official(s), performing organization, and contracting organization must be consistent throughout the entire pre-application and full application submission process. Inconsistencies may delay application processing and limit or negate the ability to view, modify, and verify the application in eBRAP. If any changes need to be made, the applicant should contact the eBRAP Help Desk at help@eBRAP.org or 301-682-5507 prior to the application submission deadline.

When starting the pre-application, applicants will be asked to select a "Mechanism Option". Please be sure to select the correct option appropriate to your pre-application:

<b>Application Includes:</b>	Select Option:
No clinical trial	Translational Research Award, Level 1 Option
Clinical trial	Translational Research Award – Clinical Trial, Level 2 Option

#### **II.D.2.a.i** Pre-Application Components

Pre-application submissions must include the following components (refer to the General Application Instructions, Section III.B, for additional information on pre-application submission):

Note: Upload documents as individual PDF files unless otherwise noted.

• Preproposal Narrative (two-page limit): The Preproposal Narrative page limit applies to text and non-text elements (e.g., figures, tables, graphs, photographs, diagrams, chemical structures, drawings) used to describe the project. Inclusion of URLs that provide additional information to expand the Preproposal Narrative and could confer an unfair competitive advantage is prohibited and may result in administrative withdrawal of the pre-application.

# The inclusion of preliminary lung cancer relevant data pertinent to the proposed project is required.

The Preproposal Narrative should include the following:

- Research: State the project's hypothesis/objective, scientific rationale, specific aims, and describe the study design and its feasibility. Describe the translational aspect of this proposed project, providing evidence for the reciprocal transfer of ideas between basic and clinical science in developing and implementing the proposed research into clinical applications in lung cancer.
  - If the proposed research includes a pilot clinical trial, briefly state the clinical intervention and subject population(s).
  - If a pilot clinical trial is proposed, provide readiness and/or anticipated first patient in date and a brief timeline for accrual and endpoints readout.
- Impact: Describe the applicability of the research on patients with lung cancer and describe how the proposed project will lead to critical discoveries or major advancements that will accelerate progress toward eradicating deaths and suffering from lung cancer. Briefly explain how the proposed research addresses at least one of the FY24 LCRP Areas of Emphasis.

- **Pre-Application Relevance Questions:** Provide responses for the following four questions in the appropriate eBRAP data fields:
  - 1. Is the applicant currently affiliated with the military and/or VA? (Yes/No)
  - 2. Does the proposed research include collaborations with a current military and/or VA investigator/institution? (Yes/No)
  - 3. Does the proposed research include the use of military and/or VA resources (e.g., data, patient samples)? (Yes/No) If yes, specify the resource and how the resource will be accessed to conduct the proposed research (500-character limit, including spaces).
  - 4. Clearly articulate how the proposed research is relevant to military Service Members, Veterans, and their Families; include supporting evidence as applicable to the proposed research (500-character limit, including spaces).
- Pre-Application Supporting Documentation: The items to be included as supporting documentation for the pre-application must be uploaded as individual files and are limited to the following:
  - **References Cited (one-page limit):** List the references cited (including URLs if available) in the Preproposal Narrative using a standard reference format that includes the full citation (i.e., author[s], year published, reference title, and reference source, including volume, chapter, page numbers, and publisher, as appropriate).
  - List of Abbreviations, Acronyms, and Symbols: Provide a list of abbreviations, acronyms, and symbols used in the Preproposal Narrative.
  - Key Personnel Biographical Sketches (five-page limit per individual): All biographical sketches should be uploaded as a single combined file. Biographical sketches should be used to demonstrate background and expertise through education, positions, publications, and previous work accomplished.

#### II.D.2.a.ii Pre-Application Screening Criteria

To determine the technical merits of the pre-application and the relevance to the mission of the DHP and the LCRP, pre-applications will be screened based on the following criteria:

- Relevance to Military Health: To what degree the proposed project is relevant to military Service Members, Veterans, and their Families.
- **Research:** To what degree the experimental approach for accomplishing the specific aims is feasible and addresses the hypothesis or objective. How the project will translate well-founded research findings into clinical applications in lung cancer.
- **Impact:** Whether the proposed project has the potential to lead to critical discoveries or major advancements that will accelerate progress toward eradicating deaths and suffering

from lung cancer. The degree to which the proposed project addresses at least one of the FY24 LCRP Areas of Emphasis.

#### **II.D.2.a.iii** Notification of Pre-Application Screening Results

Following the pre-application screening, PIs will be notified as to whether they are invited to submit full applications. The estimated date when PIs can expect to receive notification of an invitation to submit a full application is indicated in <a href="Section I, Overview of the Funding">Section I, Overview of the Funding</a>
<a href="Opportunity">Opportunity</a>. No feedback (e.g., a critique of the pre-application's strengths and weaknesses) is provided at this stage. Because the invitation to submit a full application is based on the contents of the pre-application, investigators should not change the title or research objectives after the pre-application is submitted.

#### II.D.2.b. Step 2: Full Application Submission

Applicants must receive an invitation to submit a full application. Uninvited full application submissions will be rejected.

#### II.D.2.b.i. Full Application Submission Type

**Extramural Submissions:** Full applications from extramural organizations *must* be submitted through Grants.gov Workspace. Full applications from extramural organizations, including non-DOD federal organizations, received through eBRAP will be withdrawn. Refer to the General Application Instructions, Section IV, for considerations and detailed instructions regarding extramural full application submission.

**Intramural Submissions:** Intramural DOD organizations may submit full applications through either eBRAP or Grants.gov. There is no preference from the CDMRP for which submission portal is utilized; submission through one portal or the other does not provide the application any advantage during the review process. Intramural DOD organizations that choose to submit through Grants.gov should follow Extramural Submission instructions. Intramural DOD organizations that are unable to submit through Grants.gov should submit through eBRAP. For the remainder of this program announcement, it will be assumed intramural DOD submissions will proceed through eBRAP. Refer to the General Application Instructions, Section V, for considerations and detailed instructions regarding intramural DOD full application submission.

#### **II.D.2.b.ii.** Full Application Submission Components

Each application submission must include the completed full application package for this program announcement. See <u>Section II.H.3</u> of this program announcement for a checklist of the required application components.

(a) SF424 Research & Related Application for Federal Assistance Form (*Extramural Submissions Only*): Refer to the General Application Instructions, Section IV.B, for detailed information.

#### (b) Attachments:

Each attachment to the full application components must be uploaded as an individual file in the format specified and in accordance with the formatting guidelines listed in the General Application Instructions, Appendix 2.

Attachment 1: Project Narrative (15-page limit): Upload as "ProjectNarrative.pdf". The page limit of the Project Narrative applies to text and non-text elements (e.g., figures, tables, graphs, photographs, diagrams, chemical structures, drawings) used to describe the project. Inclusion of URLs (uniform resource locators) that provide additional information that expands the Project Narrative and could confer an unfair competitive advantage is prohibited and may result in administrative withdrawal of the application.

Describe the proposed project in detail using the outline below. *Applications proposing a pilot clinical trial must include preliminary data*.

- Background: Present the ideas and reasoning behind the proposed research. The application must provide a sound scientific rationale to support the proposed project and its feasibility as established through the demonstration of logical reasoning and critical review and analysis of published literature; include relevant literature citations. Include preliminary data to support the scientific rationale and feasibility of the research approaches. Applications are strongly encouraged to also include preliminary data to support the clinical relevance of the idea. Any unpublished, preliminary data provided should originate from the laboratory of the PI or a member(s) of the research team.
- Hypotheses/Objectives: State the hypotheses/study questions and overall objective(s) to be reached.
- **Specific Aims:** Concisely explain the project's specific aims. If this application is part of a larger study, present only tasks that this award would fund.
- Research Strategy and Feasibility: Describe the experimental design, methods, and analyses, including appropriate controls, in sufficient detail for analysis. If applicable, describe how collaborations support the research. Address potential problem areas and present alternative methods and approaches. If animal studies are proposed, describe how they will be conducted in accordance with the ARRIVE guidelines 2.0 (<a href="https://arriveguidelines.org/arrive-guidelines">https://arriveguidelines.org/arrive-guidelines</a>) to achieve reproducible and rigorous results, including the choice of model and the endpoints/outcomes to be measured. If human subjects or human biological samples will be used, include a detailed plan for the recruitment of subjects or the acquisition of samples. For clinical research, describe the strategy for the inclusion of women and minorities in the clinical research appropriate to the objectives of the study, including a description of the composition of the proposed study population in terms of sex/gender, race, and/or ethnicity, and an accompanying rationale for the selection of subjects.

If funds for a pilot clinical trial are requested, details regarding the Clinical Trial Strategy must be described in <u>Attachment 8</u>. Only those proposed studies measuring safety, effectiveness, and/or efficacy of an intervention are considered clinical trials and should submit a Clinical Trial Strategy.

- Statistical Analysis Plan: Describe the statistical analysis plan for the resulting outcomes. If applicable, include a complete power analysis to demonstrate that the sample size is appropriate to meet the objectives of the study. Describe how data will be reported and how it will be assured that the documentation will support a regulatory filing with the U.S. Food and Drug Administration (FDA), if applicable.
- Attachment 2: Supporting Documentation: Combine and upload as a single file named "Support.pdf". Start each document on a new page. The Supporting Documentation attachment should not include additional information such as figures, tables, graphs, photographs, diagrams, chemical structures, or drawings. These items should be included in the Project Narrative.

There are no page limits for any of these components unless otherwise noted. Include only those components described below; inclusion of items not requested or viewed as an extension of the Project Narrative will result in the removal of those items or may result in administrative withdrawal of the application.

- References Cited: List the references cited (including URLs, if available) in the Project Narrative using a standard reference format.
- List of Abbreviations, Acronyms, and Symbols: Provide a list of abbreviations, acronyms, and symbols.
- Facilities, Existing Equipment, and Other Resources: Describe the facilities and equipment available for performance of the proposed project and any additional facilities or equipment proposed for acquisition at no cost to the award. Indicate whether government-furnished facilities or equipment are proposed for use. If so, reference should be made to the original or present government award under which the facilities or equipment items are now accountable. There is no form for this information.
- Publications and/or Patents: Include a list of relevant publication URLs and/or patent abstracts. If articles are not publicly available, then copies of up to five published manuscripts may be included in Attachment 2. Extra items will not be reviewed.
- Letters of Organizational Support: Provide a letter (or letters, if applicable) signed by the Department Chair or appropriate organization official, confirming the laboratory space, equipment, and other resources available for the project. Letters of support not requested in the program announcement, such as those from members of Congress, do not impact application review or funding decisions.

- Letters of Collaboration (if applicable): Provide a signed letter from each collaborating individual and/or organization demonstrating that the PI has the support and resources necessary for the proposed work. If an investigator at an intramural DOD organization is named as a collaborator on a full application submitted through an extramural organization, the application must include a letter from the collaborator's Commander or Commanding Officer at the intramural DOD organization authorizing the collaborator's involvement.
  - 1. Availability of and access to research resources (to include proprietary material for the purpose/duration of the proposed research).
  - 2. Availability of and access to appropriate populations (and/or access to available samples/data or databases), if applicable.
- Letters of Commitment (if applicable): If the proposed study involves use of a commercially produced investigational drug, device, or biologic, provide a letter of commitment from the commercial entity indicating the availability of the product for the duration of the study, support for the proposed phase of research, and support for the indication to be tested.
- Inclusion of Women and Minorities: Provide an anticipated enrollment table(s) for the inclusion of women and minorities using the Public Health Service (PHS) Inclusion Enrollment Report, a three-page fillable PDF form, that can be downloaded from eBRAP at <a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>. The enrollment table(s) should be appropriate to the objectives of the study with the proposed enrollment distributed on the basis of sex/gender, race, and ethnicity. Studies utilizing human biospecimens or datasets that cannot be linked to a specific individual, gender, ethnicity, or race (typically classified as exempt from Institutional Review Board (IRB) review) are exempt from this requirement.
- Intellectual Property: Information can be found in the 2 CFR 200.315, "Intangible Property."
  - Intellectual and Material Property Plan (*if applicable*): Provide a plan for resolving intellectual and material property issues among participating organizations.
  - Commercialization Strategy (*if applicable*): Describe the commercialization plan. The plan should include intellectual property, market size, financial analysis, strengths and weaknesses, barriers to the market, competitors, and management team. Discuss the significance of this development effort, when it can be anticipated, and the potential commercial use for the technology being developed.
- DOD Data Management Plan (two-page limit is recommended): Describe the data management plan in accordance with Section 3.c, Enclosure 3, <u>DoD Instructions</u> 3200.12. Do not duplicate the Data and Research Resources Sharing Plan. Refer to General Application Instructions, Section IV.B, Attachments Form, Attachment:

Supporting Documentation, for detailed information regarding Data Management Plan content.

- Data and Research Resources Sharing Plan: Describe the type of data or research resource to be made publicly available as a result of the proposed work. Describe how data and resources generated during the performance of the project will be shared with the research community. Include the name of the repository(ies) where scientific data and resources arising from the project will be archived, if applicable. If a public repository will not be used for data or resource sharing, provide justification. Provide a milestone plan for data/results dissemination including when data and resources will be made available to other users, including dissemination activities with a particular focus on feeding back the data to affected communities and/or research participants. Refer to the CDMRP's Policy on Data & Resource Sharing located on the eBRAP "Funding Opportunities & Forms" web page <a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a> for more information about the CDMRP's expectations for making data and research resources publicly available.
- Use of DOD Resources (*if applicable*): Provide a letter of support signed by the lowest-ranking person with approval authority confirming access to active-duty military populations and/or DOD resources or databases.
- Use of VA Resources (if applicable): Provide a letter of support signed by the VA Facility Director(s) or individual designated by the VA Facility Director(s), such as the Associate Chief of Staff for Research and Development (ACOS/R&D) or Clinical Service Chief, confirming access to VA patients, resources, and/or VA research space. If the VA-affiliated non-profit corporation is not identified as the applicant organization for administering the funds, include a letter from the VA ACOS/R&D confirming this arrangement and identifying the institution that will administer the funds associated with the proposed research.
- Attachment 3: Technical Abstract (one-page limit): Upload as "TechAbs.pdf". The technical abstract is used by all reviewers. Abstracts of all funded research projects will be posted publicly. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

Technical abstracts should be written using the outline below. Clarity and completeness within the space limits are highly important.

- **Background:** Present the scientific rationale behind the proposed research project.
- Area(s) of Emphasis: State the <u>FY24 LCRP Area(s) of Emphasis</u> the project addresses.
- Hypothesis/Objective(s): State the hypothesis to be tested and/or objective(s) to be reached. Provide evidence or rationale that supports the hypothesis and/or objective(s).

- **Specific Aims:** State the specific aims of the study.
- **Study Design:** Describe the study design, including appropriate controls.
- Impact: Summarize the potential impact of the proposed project toward the goal of eradicating deaths and suffering from lung cancer. Describe how the project will translate promising, well-founded laboratory or clinical research findings into clinical applications for patients with or populations at risk for lung cancer. State explicitly how the research will ultimately accelerate the movement of promising ideas toward clinical applications.
- Relevance to Military Health: Describe how the project is relevant to military Service Members, Veterans, and their Families.
- Attachment 4: Lay Abstract (one-page limit): Upload as "LayAbs.pdf". The lay abstract is used by all reviewers, and addresses issues of particular interest to the affected community. Abstracts of all funded research projects will be posted publicly. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed. Do not duplicate the technical abstract.

Lay abstracts should address the points outlined below *in a manner that will be readily understood by readers without a background in science or medicine*. Avoid overuse use of scientific jargon, acronyms, and abbreviations.

- Describe the ultimate applicability of the proposed research.
- State the <u>FY24 LCRP Area(s)</u> of <u>Emphasis</u> the project addresses.
- What population will the research help, and how will it help them?
- What are the potential clinical applications, benefits, and risks of the anticipated outcomes?
- What are the likely contributions of the proposed research project to advancing research, patient care, and/or quality of life?
- How is the project relevant to military Service Members, Veterans, and their Families?
- Attachment 5: Statement of Work (three-page limit): Upload as "SOW.pdf". Refer to the eBRAP "Funding Opportunities & Forms" web page
   (https://ebrap.org/eBRAP/public/Program.htm) for the suggested Statement of Work
   (SOW) format and recommended strategies for assembling the SOW.

For the Translational Research Award, refer to either the "Example: Assembling a Clinical Research and/or Clinical Trial Statement of Work" or "Example: Assembling a Generic Statement of Work", whichever example is most appropriate for the proposed

- effort, for guidance on preparing the SOW. Use the "Suggested SOW Format" to develop the SOW for the proposed research. Submit as a PDF.
- Attachment 6: Impact Statement (one-page limit): Upload as "Impact.pdf". The Impact Statement should be written in plain language for lay persons. Describe how the proposed research is relevant to at least one of the FY24 LCRP Areas of Emphasis and describe how the research will make an impact. The relevance of all research should relate to patient outcomes and how it benefits those affected by lung cancer. Describe how the project will translate promising, well-founded laboratory or clinical research findings into clinical applications for patients with or populations at risk for lung cancer. Describe how the proposed research will lead to major advancements with a significant impact on lung cancer research and/or patient care, including its potential to accelerate progress toward eradicating deaths and suffering from lung cancer.
- Attachment 7: Transition Plan (two-page limit): Upload as "Transition.pdf". Provide information on potential methods and strategies to feasibly move the project's findings to the next phase of development, clinical trials, and/or delivery to the commercial market after successful completion of the award. The transition plan should include the components listed below.
  - A description of the scientific or technical requirements needed to advance the research findings.
  - An assessment of the opportunities available and potential barriers that would impact the progress of commercializing and/or translating the study results into clinical practice.
  - A timeline with defined milestones and deliverables describing the expected postaward progress of the results toward the next phase of development and eventual clinical impact.
  - Details of the funding strategy that will be used to bring the outcomes to the next phase of development. Provide sufficient evidence that the PI has, or can secure, additional funding and describe potential options to secure the additional funding needed to bring the outcomes to the next phase of development (e.g., specific potential industry partners and/or specific funding opportunities to apply for).
  - A description of collaborations and other resources that will be used to provide continuity of development.
  - A plan to distribute the findings or intervention to the lung cancer community.
- Attachment 8: Clinical Trial Strategy, if applicable (no page limit): Upload as "Clinical.pdf". If funds for a clinical trial are requested, this attachment is required. Only those proposed studies measuring safety, effectiveness, and/or efficacy of an intervention are considered clinical trials and should submit a Clinical Trial Strategy.

- Describe the scientific rationale for the proposed clinical trial. Demonstrate how the proposed clinical trial is supported by strong preliminary data and relevant literature citations. Provide a description of the intervention, and the endpoints to be measured. Articulate the type of clinical trial to be performed (e.g., randomized, cohort, casecontrol, cross-sectional) and outline the proposed methodology in sufficient detail to show a clear course of action. Provide detailed plans for initiating the clinical study within the first year, including FDA IND/Investigational Device Exemption (IDE) application submission plans within 60 days of the award, if applicable. Define the study population and indicate the access to the study population, recruitment plans, and inclusion/exclusion criteria, include a justification for the plans and alternatives strategies if issues arise. Describe the informed consent process.
- Describe the strategy for the inclusion of women and minorities appropriate to the objectives of the study, including a description of the composition of the proposed study population in terms of sex/gender, racial, and ethnic group, and an accompanying rationale for the selection of subjects. Provide an anticipated enrollment table(s) with the proposed enrollment distributed on the basis of sex/gender, race, and ethnicity. The suggested Inclusion Enrollment Report is a one-page fillable PDF form, which can be downloaded from eBRAP at <a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>.
- Describe the type of clinical trial to be performed (e.g., prospective, randomized, controlled) and outline the proposed methodology in sufficient detail to show a clear course of action. Describe potential challenges and alternative strategies where appropriate. Describe how the clinical trial will inform the correlative clinical research, if applicable.
- If the proposed clinical trial was initiated using other funding prior to this application, explain the history and background of the clinical trial and declare the source of prior funding. Specifically identify the portions of the study that would be supported with funds from this award. Describe how data will be reported and how it will be assured that the documentation will support a regulatory filing with the FDA, if applicable. State the product/intervention name.
- State how many months into the award the anticipated clinical trial would be initiated after the award begins, taking into account any required advanced preclinical work (e.g., Good Manufacturing Practice production, pharmacokinetics, and toxicity testing) and/or clinical trial preparation (IRB and DOD Office of Human Research Oversight approval).
- Statistical Plan and Data Analysis: Describe the statistical model and data analysis plan with respect to the study objectives. Specify the approximate number of human subjects to be enrolled. Include a power analysis to demonstrate that the sample size is appropriate to meet the objectives of the study and all proposed correlative studies. If a subpopulation of a recruited sample population will be used for analysis, complete a statistical analysis to ensure appropriate power can be achieved within the

- subpopulation study. Ensure sufficient information is provided to allow thorough evaluation of all statistical calculations during review of the application.
- Attachment 9: Relevance to Military Health Statement (one-page limit): Upload as "MilRelevance.pdf". The Relevance to Military Health Statement will be evaluated by the FY24 LCRP Programmatic Panel during programmatic review only. Identify how the proposed research will support mission readiness through filling a gap in cancer prevention, early detection/diagnosis, prognosis, treatment, quality of life, and/or survivorship that may have a profound impact on the health and well-being of Service Members, their Families, Veterans or other beneficiaries. Articulate how the proposed research will advance the knowledge and understanding of cancer, patient care, and/or treatment options in the MHS for the benefit of active-duty Service Members, Veterans, and other military beneficiaries. Describe the anticipated short- and/or long-term outcomes of the proposed research and their potential impact on the basic health, welfare, and/or psychosocial wellness of active-duty Service Members, Veterans, and other military beneficiaries. If active-duty military, military Families, and/or Veteran population(s) will be used in the proposed research project, describe the population(s), the appropriateness of the population(s) for the proposed study, and the feasibility of using the population. If a non-military population will be used for the proposed research project, explain how the population simulates the targeted population (i.e., Armed Forces, their Family members, and/or the Veteran population). If applicable, show how the proposed research project aligns with DOD and/or VA areas of research interest.
- Attachment 10: Representations (Extramural Submissions Only): Upload as "RequiredReps.pdf". All extramural applicants must complete and submit the Required Representations template available on eBRAP (<a href="https://ebrap.org/eBRAP/">https://ebrap.org/eBRAP/</a> public/Program.htm). For more information, see the General Application Instructions, Appendix 8, Section B, Representations.
- Attachment 11: Suggested Intragovernmental/Intramural Budget Form (if applicable): Upload as "IGBudget.pdf". If an intramural DOD organization will be a collaborator in performance of the project, complete a separate budget using the "Suggested Intragovernmental/Intramural Budget Form", available for download on the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm). The budget should cover the entire period of performance for each intramural DOD site and include a budget justification as instructed. The total costs per year for each subaward (direct and indirect costs) should be included on the Grants.gov Research & Related Budget Form under subaward costs. Refer to the General Application Instructions, Section V.A.(e), for additional information and considerations.
- (c) Research & Related Personal Data: For extramural submissions, refer to the General Application Instructions, Section IV.B.(c), and for intramural submissions, refer to the General Application Instructions, Section V.A.(c), for detailed instructions.
- (d) Research & Related Senior/Key Person Profile (Expanded): For extramural submissions, refer to the General Application Instructions, Section IV.B.(d), and for intramural

submissions, refer to the General Application Instructions, Section V.A.(d), for detailed instructions.

- PI Biographical Sketch (five-page limit): Upload as "Biosketch\_LastName.pdf".
- PI Previous/Current/Pending Support (no page limit): Upload as "Support LastName.pdf".
- **Key Personnel Biographical Sketches (five-page limit each):** Upload as "Biosketch LastName.pdf".
- **Key Personnel Previous/Current/Pending Support (no page limit):** Upload as "Support LastName.pdf".
- **(e)** Research & Related Budget: For extramural submissions, refer to the General Application Instructions, Section IV.B.(e), and for intramural submissions, refer to the General Application Instructions, Section V.A.(e), for detailed instructions.
  - Budget Justification (no page limit): For extramural submissions, refer to the General Application Instructions, Section IV.B.(e), Section L, for instructions. For intramural submissions, refer to General Application Instructions, Section V.A.(e) Budget Justification Instructions.
- (f) Project/Performance Site Location(s) Form: For extramural submissions, refer to the General Application Instructions, Section IV.B.(f), and for intramural submissions, refer to the General Application Instructions, Section V.A.(f), for detailed instructions.
- (g) Research & Related Subaward Budget Attachment(s) Form (if applicable, Extramural Submissions Only): Refer to the General Application Instructions, Section IV.B.(g), for detailed instructions.
  - Extramural Subaward: Complete the Research & Related Subaward Budget Form and upload through Grants.gov.
  - o Intramural DOD Subaward: Complete a separate "Suggested Intragovernmental/Intramural Budget Form" for each intramural DOD subaward and upload as a single document titled IGBudget.pdf to Grants.gov as Attachment 11.

#### II.D.2.c. Applicant Verification of Full Application Submission in eBRAP

Independent of submission type, once the full application is submitted it is transmitted to and processed in eBRAP. At this stage, the PI and organizational representatives will receive an email from eBRAP instructing them to log into eBRAP to review, modify, and verify the full application submission. Verification is strongly recommended but not required. eBRAP will validate full application files against the specific program announcement requirements, and discrepancies will be noted in the "Full Application Files" tab in eBRAP. However, eBRAP does not confirm the accuracy of file content. It is the applicant's responsibility to review all application components and ensure proper ordering as specified in the program announcement.

The Project Narrative and Research & Related Budget Form cannot be changed after the application submission deadline. If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated full application package must be submitted prior to the full application submission deadline. Other application components, including subaward budget(s) and subaward budget justification(s), may be changed until the end of the application verification period. The full application cannot be modified once the application verification period ends.

#### II.D.3. Unique Entity Identifier (UEI) and System for Award Management (SAM)

The applicant organization must be registered as an entity in SAM (<a href="https://www.sam.gov/content/home">https://www.sam.gov/content/home</a>) and receive confirmation of an "Active" status before submitting an application through Grants.gov. Organizations must include the UEI generated by SAM in applications to this funding opportunity.

#### **II.D.4. Submission Dates and Times**

The pre-application and application submission process should be started early to avoid missing deadlines. There are no grace periods. Failure to meet either of these deadlines will result in submission rejection.

All submission dates and times are indicated in Section I, Overview of the Funding Opportunity.

#### **II.D.5.** Funding Restrictions

#### **Funding Level 1:**

The maximum period of performance is 3 years.

The application's direct costs budgeted for the entire period of performance should not exceed \$900,000. If indirect cost rates have been negotiated, indirect costs are to be budgeted in accordance with the organization's negotiated rate. Collaborating organizations should budget associated indirect costs in accordance with each organization's negotiated rate.

All direct and indirect costs of any subaward or contract must be included in the direct costs of the primary award.

The applicant may request the entire maximum funding amount for a project that may have a period of performance less than the maximum 3 years.

#### **Funding Level 2:**

The maximum period of performance is 4 years.

The application's direct costs budgeted for the entire period of performance should not exceed **\$1.2M**. If indirect cost rates have been negotiated, indirect costs are to be budgeted in accordance with the organization's negotiated rate. Collaborating organizations should budget associated indirect costs in accordance with each organization's negotiated rate.

All direct and indirect costs of any subaward or contract must be included in the direct costs of the primary award.

The applicant may request the entire maximum funding amount for a project that may have a period of performance less than the maximum 4 years.

For this award mechanism, direct costs:

May be requested for (not all-inclusive):

- Travel in support of multi-institutional collaborations.
- Costs for one investigator to travel to one scientific/technical meeting per year. The intent of travel to scientific/technical meetings should be to present project information or disseminate project results from the FY24 LCRP Translational Research Award.

#### **II.D.6. Other Submission Requirements**

Refer to the General Application Instructions, Appendix 2, for detailed formatting guidelines.

## **II.E.** Application Review Information

#### II.E.1. Criteria

#### II.E.1.a. Peer Review

To determine technical merit, all applications will be individually evaluated according to the following **scored criteria**, which are of equal importance:

#### Research Strategy and Feasibility

- How well the scientific rationale supports the project and its feasibility as demonstrated by a critical review and analysis of the literature, relevant preliminary data, and logical reasoning.
- How well the applicant provides sufficient evidence that the research is ready to move into the proposed translational stage of research.
- How well the hypotheses or objectives, aims, experimental design, methods, and analyses are developed.
- How well the application acknowledges potential problems and addresses alternative methods and approaches.
- o If animal studies are included, how well they are designed in accordance with the ARRIVE guidelines 2.0 (<a href="https://arriveguidelines.org/arrive-guidelines">https://arriveguidelines.org/arrive-guidelines</a>) to achieve reproducible and rigorous results, including the choice of model and the endpoints/outcomes to be measured.

- o If human subjects or human anatomical samples will be used, how well the plan for the recruitment of subjects or the acquisition of samples is justified and appropriate to accomplish the proposed work.
- If clinical research is proposed, whether the strategy for the inclusion of women and minorities and distribution of proposed enrollment are appropriate for the proposed research.
- If applicable, whether data will be appropriately reported and documented to support a regulatory filing with the FDA.
- How well the SOW indicates a feasible plan and timeline to conduct the research and provides clearly defined research milestones to be accomplished by the end of each year in the period of performance.

#### • Clinical Trial Strategy (as applicable for applications proposing a pilot clinical trial)

- To what extent the application justifies the scientific rationale for the proposed clinical trial.
- To what degree the proposed clinical trial and proposed intervention are supported by strong preliminary data and relevant literature citations.
- o How well the endpoints to be measured are justified for the described clinical trial.
- Whether the proposed type of clinical trial to be performed (e.g., randomized, cohort, case-control, cross-sectional) is supported by the methodology to be used.
- Whether there are detailed plans for initiating the clinical study within the first year, including FDA IND/IDE application submission plans within 60 days of the award, if applicable.
- Whether the study population is clearly defined and whether access to the study population, recruitment plans, and inclusion/exclusion criteria including justification for the plans and alternatives strategies if issues arise. Whether the informed consent process is clearly articulated.
- Whether the application describes the strategy for the inclusion of women and minorities that is appropriate for the objectives of the study, including a description of the composition of the proposed study population in terms of sex/gender, racial, and ethnic group, and an accompanying rationale for the selection of subjects.
- Whether an anticipated enrollment table(s) with the proposed enrollment distributed on the basis of sex/gender, race, and ethnicity is included.
- o If applicable, whether the application shows how the data will be reported and how it will be assured that the documentation will support a regulatory filing with the FDA.

- o To what degree potential challenges and alternative strategies are addressed.
- o How well the clinical trial will inform correlative clinical research, if applicable.

#### Impact

- Whether the proposed research addresses at least one of the <u>FY24 LCRP Areas of Emphasis</u>.
- Whether the proposed research project describes how it will lead to major advancements with a significant impact on lung cancer research and/or patient care, including how the project will translate promising, well-founded laboratory or clinical research findings into clinical applications for patients with or populations at risk for lung cancer.
- How well the proposed research project demonstrates potential to accelerate progress toward eradicating deaths and suffering from lung cancer.

#### Statistical Plan

• Whether the statistical plan, including sample size projections and power analysis, is adequate for the study (if applicable).

#### • Transition Plan

- How well the application demonstrates feasible methods and strategies to move the project's findings to the next phase of development, clinical trials, and/or delivery to the commercial market after successful completion of the award.
- Whether the application appropriately addresses available opportunities and potential barriers that could impact the progress of commercializing and/or translating the study results into clinical practice.
- Whether the timeline for expected post-award progress is reasonable and contains appropriate milestones and deliverables for advancing the study results toward clinical impact.
- Whether the proposed transition plan includes sufficient evidence that the PI has or can secure additional funding or whether the plan clearly describes potential options to secure the additional funding needed to bring the outcomes to the next phase of development.
- Whether the collaborations and other resources described are sufficient to provide continuity of development.
- How well the plans are described for distribution of the findings or intervention to the lung cancer community.

#### Personnel

- How well the background and expertise of the applicant and other key personnel demonstrate their ability to perform the proposed work.
- o To what degree the levels of effort by the applicant and other key personnel are appropriate to ensure the success of this research effort.
- How well the applicant's record of accomplishment demonstrates their ability to accomplish the proposed work.

In addition, the following criteria will also contribute to the overall evaluation of the application, but will not be individually scored and are therefore termed **unscored criteria**:

#### Environment

- To what extent the scientific environment is appropriate for the proposed research project.
- How well the research requirements are supported by the availability of and accessibility to facilities and resources.
- To what extent the quality and level of institutional support are appropriate for the proposed research project.
- o If applicable, to what degree the Intellectual and Material Property Plan is appropriate.

#### Budget

• Whether the budget is appropriate for the proposed research.

#### • Application Presentation

To what extent the writing, clarity, and presentation of the application components influence the review.

#### **II.E.1.b.** Programmatic Review

To make funding recommendations and select the application(s) that, individually or collectively, will best achieve the program objectives, the following criteria are used by programmatic reviewers:

- Ratings and evaluations of the peer reviewers
- Relevance to the priorities of the DHP and FY24 LCRP, as evidenced by the following:
  - Adherence to the intent of the funding opportunity
  - Program portfolio composition

• Relative impact and relevance to military health

#### **II.E.2.** Application Review and Selection Process

All applications are evaluated by scientists, clinicians, and consumers in a two-tier review process. The first tier is **peer review**, the evaluation of applications against established criteria to determine technical merit, where each application is assessed for its own merit, independent of other applications. The second tier is **programmatic review**, a comparison-based process in which applications with high scientific and technical merit are further evaluated for programmatic relevance. Final recommendations for funding are made to the Commanding General, USAMRDC. *The highest-scoring applications from the first tier of review are not automatically recommended for funding. Funding recommendations depend on various factors as described in <u>Section II.E.1.b</u>, <u>Programmatic Review</u>. Additional information about the two-tier process used by the CDMRP can be found at <a href="https://cdmrp.health.mil/about/2tierRevProcess">https://cdmrp.health.mil/about/2tierRevProcess</a>.* 

All CDMRP review processes are conducted confidentially to maintain the integrity of the merit-based selection process. Panel members sign a statement declaring that application and evaluation information will not be disclosed outside the review panel. Violations of confidentiality can result in the dissolution of a panel(s) and other corrective actions. In addition, personnel at the applicant or collaborating organizations are prohibited from contacting persons involved in the review and approval process to gain protected evaluation information or to influence the evaluation process. Violations of these prohibitions will result in the administrative withdrawal of the organization's application. Violations by panel members or applicants that compromise the confidentiality of the review and approval process may also result in suspension or debarment from federal awards. Furthermore, the unauthorized disclosure of confidential information of one party to a third party is a crime in accordance with 18 USC 1905.

#### **II.E.3.** Integrity and Performance Information

Prior to making an assistance agreement award where the federal share is expected to exceed the simplified acquisition threshold, as defined in 2 CFR 200.1, over the period of performance, the federal awarding agency is required to review and consider any information about the applicant that is available in SAM.

An applicant organization may review SAM and submit comments on any information currently available about the organization that a federal awarding agency previously entered. The federal awarding agency will consider any comments by the applicant, in addition to other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under federal awards when determining a recipient's qualification prior to award, according to the qualification standards of the Department of Defense Grant and Agreement Regulations (DoDGARs), Section 22.415.

#### **II.F. Federal Award Administration Information**

#### **II.F.1. Federal Award Notices**

Each applicant organization and PI will receive email notification when the funding recommendations are posted to eBRAP. At this time, each PI will receive a peer review summary statement on the strengths and weaknesses of the application and an information paper describing the funding recommendation and review process for the LCRP award mechanisms. The information papers and a list of organizations and PIs recommended for funding are also posted on the program's page within the CDMRP website.

If an application is recommended for funding, after the email notification is posted to eBRAP, a government representative will contact the person authorized to negotiate on behalf of the recipient organization.

Only an appointed USAMRAA Grants Officer may obligate the government to the expenditure of funds to an extramural organization. No commitment on the part of the government should be inferred from discussions with any other individual. The award document signed by the Grants Officer is the official authorizing document (i.e., assistance agreement).

Intra-DOD obligations of funding will be made according to the terms of a negotiated Inter-Agency Agreement and managed by a CDMRP Science Officer.

Funding obligated to *intragovernmental and intramural DOD organizations* will be sent through the Military Interdepartmental Purchase Request (MIPR), Funding Authorization Document (FAD), or Direct Charge Work Breakdown Structure processes. Transfer of funds is contingent upon appropriate safety and administrative approvals. Intragovernmental and intramural DOD investigators and collaborators must coordinate receipt and commitment of funds through their respective Resource Manager/Task Area Manager/Comptroller or equivalent Business Official.

An organization may, at its own risk and without the government's prior approval, incur obligations and expenditures to cover costs up to 90 days before the beginning date of the initial budget period of a new award. For extramural submissions, refer to the General Application Instructions, Section IV.B.(e), Pre-Award Costs section, and for intramural submissions, refer to the General Application Instructions, Section V.A.(e), Pre-Award Costs section, for additional information about pre-award costs.

If there are technical reporting requirement delinquencies for any existing CDMRP awards at the applicant organization, no new awards will be issued to the applicant organization until all delinquent reports have been submitted.

#### II.F.2. PI Changes and Award Transfers

Unless otherwise restricted, changes in PI or organization will be allowed on a case-by-case basis, provided the intent of the award mechanism is met.

The organizational transfer of an award supporting a clinical trial is strongly discouraged and, in most cases, will not be allowed. Approval of a transfer request will be on a case-by-case basis at the discretion of the Grants Officer.

An organizational transfer of an award will not be allowed in the last year of the (original) period of performance or any extension thereof.

Refer to the General Application Instructions, Appendix 7, Section F, for general information on organization or PI changes.

#### II.F.3. Administrative and National Policy Requirements

Applicable requirements in the DoDGARs found in 32 CFR, Chapter I, Subchapter C, and 2 CFR, Chapter XI, apply to grants and cooperative agreements resulting from this program announcement.

Refer to the General Application Instructions, Appendix 7, for general information regarding administrative requirements.

Refer to the General Application Instructions, Appendix 8, for general information regarding national policy requirements.

Refer to full text of the latest <u>DoD R&D Terms and Conditions</u> and the <u>USAMRAA Research</u> <u>Terms and Conditions</u>: <u>Addendum to the DoD R&D Terms and Conditions</u> for further information.

Applications recommended for funding that involve animals, human data, human specimens, human subjects, or human cadavers must be reviewed for compliance with federal and DOD animal and/or human subjects protection requirements and approved by the USAMRDC Office of Human and Animal Research Oversight, prior to implementation. This administrative review requirement is in addition to the local Institutional Animal Care and Use Committee, IRB, or Ethics Committee review. Refer to the General Application Instructions, Appendix 6, for additional information.

Funded trials are required to post a copy of the IRB-approved informed consent form used to enroll subjects on a publicly available federal website in accordance with federal requirements described in 32 CFR 219. Funded studies are required to register the study in the National Institutes of Health clinical trial registry, <a href="www.clinicaltrials.gov">www.clinicaltrials.gov</a>, prior to initiation of the study. Refer to the General Application Instructions, Appendix 6, Section F, for further details.

#### II.F.4. Reporting

Annual technical progress reports as well as a final technical progress report will be required. Annual and final technical reports must be prepared in accordance with the Research Performance Progress Report (RPPR).

The Award Terms and Conditions will specify whether additional and/or more frequent reporting is required.

For all awards including prospective accrual of human subjects, quarterly technical progress reports may be required.

Award Expiration Transition Plan: An Award Expiration Transition Plan must be submitted with the final progress report. Use the one-page template "Award Expiration Transition Plan," available on the eBRAP "Funding Opportunities & Forms" web page (<a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>) under the "Progress Report Formats" section. The Award Expiration Transition Plan must outline whether and how the research supported by this award will progress and must include source(s) of funding, either known or pending.

PHS Inclusion Enrollment Reporting: *(only required for clinical research studies and pilot clinical trials)*: Enrollment reporting on the basis of sex/gender, race, and/or ethnicity using the PHS Inclusion Enrollment Report will be required with each annual and final progress report. The PHS Inclusion Enrollment Report is available on the "Funding Opportunities & Forms" web page (<a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>) in eBRAP.

Awards resulting from this program announcement may entail additional reporting requirements related to recipient integrity and performance matters. Recipient organizations that have federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10.0M are required to provide information to SAM about certain civil, criminal, and administrative proceedings that reached final disposition within the most recent 5-year period and that were connected with performance of a federal award. These recipients are required to disclose, semiannually, information about criminal, civil, and administrative proceedings as specified in the applicable Representations (see General Application Instructions, Appendix 8, Section B).

# **II.G. Federal Awarding Agency Contacts**

## II.G.1. eBRAP Help Desk

Questions regarding program announcement content or submission requirements as well as technical assistance related to pre-application or intramural application submission

Phone: 301-682-5507

Email: help@eBRAP.org

#### **II.G.2.** Grants.gov Contact Center

Questions regarding Grants.gov registration and Workspace

Phone: 800-518-4726; International 1-606-545-5035

Email: support@grants.gov

#### **II.H.** Other Information

#### **II.H.1. Program Announcement and General Application Instructions Versions**

Questions related to this program announcement should refer to the program name, the program announcement name, and the program announcement version code 901a. The program announcement numeric version code will match the General Application Instructions version code 901.

#### **II.H.2.** Administrative Actions

After receipt of pre-applications or applications, the following administrative actions may occur.

#### II.H.2.a. Rejection

The following will result in administrative rejection of the pre-application:

- Preproposal Narrative exceeds page limit.
- Preproposal Narrative is missing.

The following will result in administrative rejection of the full application:

- Submission of an application for which a letter of invitation was not issued.
- Project Narrative exceeds page limit.
- Project Narrative is missing.
- Budget is missing.

#### II.H.2.b. Modification

- Pages exceeding the specific limits will be removed prior to review for all documents other than the Project Narrative.
- Documents not requested will be removed.

#### II.H.2.c. Withdrawal

The following may result in administrative withdrawal of the pre-application or application:

An FY24 LCRP Programmatic Panel member is named as being involved in the research proposed or is found to have assisted in the pre-application or application processes including, but not limited to, concept design, application development, budget preparation, and the development of any supporting documentation, including letters of support/recommendation.
 A list of the FY24 LCRP Programmatic Panel members can be found at <a href="https://cdmrp.health.mil/lcrp/panels/panels24">https://cdmrp.health.mil/lcrp/panels/panels24</a>.

- The application fails to conform to this program announcement description.
- Inclusion of URLs, with the exception of links in References Cited and Publication and/or Patent Abstract sections.
- Applications that include names of personnel from either of the CDMRP peer or
  programmatic review companies. For FY24, the identities of the peer review contractor and
  the programmatic review contractor may be found at the CDMRP website
  (https://cdmrp.health.mil/about/2tierRevProcess).
- Personnel from applicant or collaborating organizations are found to have contacted persons involved in the review or approval process to gain protected evaluation information or to influence the evaluation process.
- Applications from extramural organizations, including non-DOD federal agencies, received through eBRAP.
- Applications submitted by a federal government organization (including an intramural DOD organization) may be withdrawn if (a) the organization cannot accept and execute the entirety of the requested budget in current fiscal year (FY24) funds and/or (b) the federal government organization cannot coordinate the use of contractual, assistance, or other appropriate agreements to provide funds to collaborators.
- Application includes research data that are classified and/or proposes research that may produce classified outcomes, or outcomes deemed sensitive to national security concerns.
- Submission of the same research project to different funding opportunities within the same program and fiscal year.
- The invited application proposes a different research project than that described in the preapplication.
- The application does not address at least one of the <u>FY24 LCRP Areas of Emphasis</u>.
- An application proposing a clinical trial where <u>Attachment 8: Clinical Trial Strategy</u> is missing.
- The pre-application or application proposes only mesothelioma research.

#### II.H.2.d. Withhold

Applications that appear to involve research misconduct will be administratively withheld from further consideration pending organizational investigation. The organization will be required to provide the findings of the investigation to the USAMRAA Grants Officer for a determination of the final disposition of the application.

# II.H.3. Full Application Submission Checklist

Full Application Components	Uploaded	
SF424 Research & Related Application for Federal Assistance		
(Extramural submissions only)		
Summary (Tab 1) and Application Contacts (Tab 2) (Intramural submissions only)		
Attachments		
Project Narrative - Attachment 1, upload as "ProjectNarrative.pdf"		
Supporting Documentation - Attachment 2, upload as "Support.pdf"		
Technical Abstract – Attachment 3, upload as "TechAbs.pdf"		
Lay Abstract – Attachment 4, upload as "LayAbs.pdf"		
Statement of Work – Attachment 5, upload as "SOW.pdf"		
Impact Statement – Attachment 6, upload as "Impact.pdf"		
Transition Plan – Attachment 7, upload as "Transition.pdf"		
Clinical Trial Strategy (if applicable) – Attachment 8, upload as "Clinical.pdf"		
Relevance to Military Health Statement – Attachment 9, upload as "MilRelevance.pdf"		
Representations (Extramural submissions only) – Attachment 10, upload as "RequiredReps.pdf"		
Suggested Intragovernmental/Intramural Budget Form ( <i>if applicable</i> ) — Attachment 11, upload as "IGBudget.pdf"		
Research & Related Personal Data		
Research & Related Senior/Key Person Profile (Expanded)		
Attach PI Biographical Sketch (Biosketch_LastName.pdf)		
Attach PI Previous/Current/Pending Support (Support_LastName.pdf)		
Attach Biographical Sketch (Biosketch_LastName.pdf) for each senior/key person		
Attach Previous/Current/Pending (Support_LastName.pdf) for each senior/key person		
Research & Related Budget (Extramural submissions only) Include budget justification		
Budget (Intramural submissions only) Include budget justification		
Project/Performance Site Location(s) Form		
Research & Related Subaward Budget Attachment(s) Form (if applicable)		

#### **APPENDIX 1: ACRONYM LIST**

ACOS/R&D Associate Chief of Staff for Research and Development CDMRP Congressionally Directed Medical Research Programs

CFR Code of Federal Regulations

CHTN Cooperative Human Tissue Network

DHP Defense Health Program
DOD Department of Defense

DoDGARs Department of Defense Grant and Agreement Regulations

eBRAP Electronic Biomedical Research Application Portal

ET Eastern Time

FAD Funding Authorization Document FDA U.S. Food and Drug Administration

FY Fiscal Year

IDE Investigational Device Exemption

IND Investigational New Drug
IRB Institutional Review Board

LCBRN Lung Cancer Biospecimen Resource Network

LCRP Lung Cancer Research Program

M Million

MHS Military Health System

MIPR Military Interdepartmental Purchase Request

PDF Portable Document Format

PHS Public Health Service
PI Principal Investigator

RPPR Research Performance Progress Report

SAM System for Award Management

SOW Statement of Work

UEI Unique Entity Identifier

URL Uniform Resource Locator

USAMRAA U.S. Army Medical Research Acquisition Activity

USAMRDC U.S. Army Medical Research and Development Command

USC United States Code

VA U.S. Department of Veterans Affairs