# I. OVERVIEW OF THE FUNDING OPPORTUNITY

**Program Announcement for the Department of Defense** 

**Defense Health Program** 

**Congressionally Directed Medical Research Programs** 

# **Peer Reviewed Cancer Research Program**

# **Translational Team Science Award**

**Announcement Type: Initial** 

Funding Opportunity Number: W81XWH-22-PRCRP-TTSA

Assistance Listing Number: 12.420 Military Medical Research and Development

## SUBMISSION AND REVIEW DATES AND TIMES

- **Pre-Application (Letter of Intent) Submission Deadline:** 5:00 p.m. Eastern time (ET), July 12, 2022
- **Application Submission Deadline:** 11:59 p.m. ET, August 2, 2022
- End of Application Verification Period: 5:00 p.m. ET, August 9, 2022
- **Peer Review:** October 2022
- Programmatic Review: December 2022

This program announcement must be read in conjunction with the General Application Instructions, version 702. 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."

# TABLE OF CONTENTS

I.	OVERVIEW OF THE FUNDING OPPORTUNITY	1
II.	DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY	3
	II.A. Program Description	3
	II.A.1. FY22 PRCRP Topic Areas	3
	II.A.2. FY22 PRCRP Military Health Focus Areas	4
	II.A.3. FY22 PRCRP Overarching Challenges	5
	II.B. Award Information	7
	II.C. Eligibility Information	11
	II.C.1. Eligible Applicants	11
	II.C.2. Cost Sharing	12
	II.C.3. Other	12
	II.D. Application and Submission Information	12
	II.D.1. eBRAP and Grants.gov	12
	II.D.2. Content and Form of the Application Submission	13
	II.D.3. Unique Entity Identifier (UEI) and System for Award Management (SAM)	31
	II.D.4. Submission Dates and Times	31
	II.D.5. Funding Restrictions	32
	II.D.6. Other Submission Requirements	33
	II.E. Application Review Information	33
	II.E.1. Criteria	33
	II.E.2. Application Review and Selection Process	38
	II.E.3. Integrity and Performance Information	39
	II.E.4. Anticipated Announcement and Federal Award Dates	39
	II.F. Federal Award Administration Information	39
	II.F.1. Federal Award Notices	39
	II.F.2. Administrative and National Policy Requirements	
	II.F.3. Reporting	41
	II.G. Federal Awarding Agency Contacts	42
	II.G.1. eBRAP Help Desk	
	II.G.2. Grants.gov Contact Center	42
	II.H. Other Information	
	II.H.1. Program Announcement and General Application Instructions Versions	
	II.H.2. Administrative Actions	
	II.H.3. Application Submission Checklist	45
ΑF	PPENDIX 1: ACRONYM LIST	47

# II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

# **II.A. Program Description**

Applications to the Fiscal Year 2022 (FY22) Peer Reviewed Cancer Research Program (PRCRP) are being solicited by the U.S. Army Medical Research Acquisition Activity (USAMRAA) using delegated authority provided by United States Code, Title 10, Section 2358 (10 USC 2358). The execution management agent for this program announcement is the Congressionally Directed Medical Research Programs (CDMRP) at the U.S. Army Medical Research and Development Command (USAMRDC). The PRCRP was initiated in 2009 to provide support for research of exceptional scientific merit for the benefit of Service Members, their families, and the American public. Appropriations for the PRCRP from FY09 through FY21 totaled \$654.8 million (M). The FY22 appropriation is \$130M.

The goal of the PRCRP is to improve mission readiness and quality of life by decreasing the burden of cancer on Service Members, their families, Veterans, and the American public. The PRCRP is charged by Congress with the mission to investigate cancer risks and knowledge gaps that may be relevant to active-duty Service Members, their families, other military beneficiaries, and the American public.

The proposed research must be relevant to active-duty Service Members, Veterans, military beneficiaries, and/or the American public.

## II.A.1. FY22 PRCRP Topic Areas

To be considered for funding, applications for the FY22 PRCRP Translational Team Science Award *must* address at least one of the congressionally directed FY22 PRCRP Topic Areas. Congressional language stipulates the FY22 PRCRP must not fund research into breast, kidney, lung, pancreatic, prostate, ovarian, rare cancer, and melanoma. Applicants are directed to apply to the individual CDMRP cancer programs those disease areas. *Research applications in the areas of breast, kidney, lung, pancreatic, prostate, ovarian, rare cancer, or melanoma are prohibited and will be rejected*. The inclusion of the individual Rare Cancers Research Program *shall not* prohibit the funding of the FY22 PRCRP congressionally directed cancers or cancer subtypes that may be rare by definition. The FY22 PRCRP Topic Areas are listed below.

- Bladder cancer
- Blood cancers
- Brain cancer
- Colorectal cancer

Endometrial cancer

- Esophageal cancer
- Germ cell cancers
- Head and Neck cancer

- Liver cancer
- Lymphoma
- Mesothelioma
- Metastatic cancers
- Returning for FY22: Myeloma
- Neuroblastoma
- Pediatric, adolescent, and young adult cancers<sup>1</sup>

- Pediatric brain tumors
- Stomach cancer
- Sarcoma
- Thyroid cancer
- *New for FY22:* Von Hippel-Lindau syndrome malignancies (excluding cancers of the kidney and pancreas)

Metastatic cancer is cancer that has spread from its original location to another place in the body, representing what are known as stage III and stage IV cancer diagnoses. While recent research has revealed that there is a genetic basis for susceptibility or resistance to metastasis, more research is needed to develop a comprehensive understanding of this complex process.

Congressional language prohibits studies involving breast, kidney, lung, pancreatic, prostate, ovarian, rare cancer, and melanoma to be funded for any Topic Area included in the PRCRP.

## II.A.2. FY22 PRCRP Military Health Focus Areas

In addition to addressing at least one of the required FY22 PRCRP Topic Areas, applications for the FY22 PRCRP Translational Team Science Award *must* define how the research is relevant to Service Members and their families. It is central to the Vision and Mission of the PRCRP that applications address how the proposed research is related to military health, mission readiness, and the cancer health needs of both deployed and non-deployed military personnel, their dependents, Veterans, and other military beneficiaries (i.e., family members of retirees) (<a href="https://cdmrp.army.mil/pubs/video/prc/prcrp\_vision\_video">https://cdmrp.army.mil/pubs/video/prc/prcrp\_vision\_video</a>). The FY22 PRCRP *requires all applications* to demonstrate the relevance of the research to at least one of the Military Health Focus Areas listed and show how the research will decrease the burden of cancer on Service Members, their families, and Veterans.

## FY22 PRCRP Military Health Focus Areas:

## • Environmental exposure risk factors associated with cancer

Environmental risk factors should be relevant to activities specific to the military such as deployments that may lead to exposures to potential carcinogens (ionizing radiation, chemicals, infectious agents, etc.). For more information on military-related exposures and risk factors for cancer, applicants should refer to Exposure Related Health Concerns at

<sup>&</sup>lt;sup>1</sup> The definition of adolescents and young adults is derived from the National Cancer Institute (<a href="https://www.cancer.gov/types/aya">https://www.cancer.gov/types/aya</a>). Research should be targeted toward pediatric (ages 0–14 years), adolescents (ages 15–24 years), and/or young adults (ages 25–39 years).

https://www.publichealth.va.gov/exposures/health-concerns.asp or to the PRCRP website (https://cdmrp.army.mil/prcrp/default).

## Gaps in cancer research that may affect mission readiness

- Gaps in cancer prevention, early detection/diagnosis, prognosis, and/or treatment that
  may impact mission readiness and the health and well-being of military members,
  Veterans, their beneficiaries, and the general public.
- Gaps in quality of life and/or survivorship that may impact mission readiness and the health and well-being of military members, Veterans, their beneficiaries, and the general public.

Mission readiness under the FY22 PRCRP Military Health Focus Areas refers to the impact of cancer on the Service Member. Decreasing the impact of cancer on active-duty Service Members and/or their families protects the overall military missions. Some examples of relevant research to decrease the impact on mission readiness may include, but are not limited to:

- Studies on the improvement in survival while minimizing late effects that would allow an active-duty Service Member to return to full duty;
- Treatments to minimize a cancer patient's (either a Service Member's or their family members') time in the hospital, thus maximizing the time the Service Member is on duty;
- Effective ways to minimize cancer relapse for Service Members or their families (in the event of a family member's relapse the active-duty Service Member is called home regardless of deployment status);
- Research into improvements in cancer detection that would lead to earlier diagnosis, thus allowing for improved treatment of the Service Member and early return to duty.

For more information on military health and cancer:

- PRCRP Vision Video (<a href="https://cdmrp.army.mil/pubs/video/prc/prcrp\_vision\_video">https://cdmrp.army.mil/pubs/video/prc/prcrp\_vision\_video</a>)
- PRCRP (<a href="https://cdmrp.army.mil/prcrp/default">https://cdmrp.army.mil/prcrp/default</a>)
- Military Health System (MHS) (<a href="https://www.health.mil">https://www.health.mil</a>)
- Department of Veterans Affairs (VA) (https://www.va.gov/)

Investigators are strongly encouraged to collaborate, integrate, and/or align their research projects with Department of Defense (DOD) and/or VA research laboratories and programs.

# **II.A.3. FY22 PRCRP Overarching Challenges**

The PRCRP developed a strategy to address multiple issues in cancer research over the spectrum of different cancer topics considered for funding under the PRCRP. These Overarching Challenges are critical gaps in cancer research, care, and/or patient outcomes that, if addressed,

will advance mission readiness of U.S. military members affected by cancer and improve quality of life by decreasing the burden of cancer on Service Members, their families, Veterans, and the American public. Simply identifying an Overarching Challenge is not sufficient. Applications must address at least one of the following Overarching Challenges in a way that can lead to or make a breakthrough and have a major impact. The 14 FY22 PRCRP Overarching Challenges are classified in six different categories. The applicant must address at least one of the 14 FY22 PRCRP Overarching Challenges and not just select a category.

#### Prevention

- Develop innovative prevention strategies and early detection methods to decrease cancer burden in diverse different populations.
- o Identify and elucidate the mechanisms behind cancer epigenetics/genetics and cancer development to improve prevention methods.

# • Diagnostics/Prognostics

- Identify strategies to predict treatment resistance, recurrence, and the development of advanced disease.
- o Distinguish unique features driving cancer occurrence across the spectrum of ages.
- Develop and improve minimally invasive methods to detect cancer initiation, progression, and recurrence.

## • Therapeutics

- o Transform cancer treatment through the identification of new targets, especially for advanced disease and metastasis.
- o Advance immunotherapy across the different PRCRP Topic Areas.
- Evaluation from longitudinal collection of deep multidimensional characterization of clinically annotated research biospecimens during disease progression and/or treatment.
- Identify and elucidate the mechanisms behind cancer epigenetics/genetics and cancer development to improve treatment methods.

#### Behavioral Science

- o Develop strategies to address survivorship issues including quality of life, overall mental health, psychological impact of recurrence, and/or survivor permanent disability.
- Develop strategies to reduce short- and long-term treatment effects, including neurocognitive deficits.

## • Disparity

- Improve prevention strategies, diagnosis, treatment, and outcomes for patients in underserved or under recognized populations.
- o Develop strategies to improve accessibility to care and to address survivorship.

## Resources

 Develop open access platform(s) or methods/tools to coordinate and integrate multiple databases, biorepositories, and data-sharing interfaces.

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

The FY22 PRCRP Translational Team Science Award (TTSA) supports hypothesis-driven translational studies. These studies must be associated with ongoing or completed clinical trial. The proposed project should focus on research for the next-phase clinical trial or future clinical application. The TTSA is intended to support advanced translational studies that are based on results from clinical investigations and to utilize information from the clinical trials for research that would then inform the clinic. While funding for clinical trials is allowed, the TTSA is intended to support multi-investigator, multidisciplinary teams to perform clinical research studies and not only to fund a clinical trial. Research projects funded by the TTSA should address critical knowledge gaps in clinical outcomes, validate key research results, expand upon potentially game-changing results, or investigate novel clinical findings. The TTSA is not intended to support high-throughput screenings, sequencing.

The goal of the TTSA is to bring together a synergistic team of investigators to address clinical problems that may have an impact on patient outcomes.

## Important aspects of the TTSA mechanism are as follows:

Collaboration: The TTSA offers a unique opportunity for multiple investigators to partner on one research project. The success of the project depends on the unique skills and contributions of each collaborator. At least two, and up to three, Principal Investigators (PIs) must partner in one overarching study in at least one of the required FY22 PRCRP Topic Areas. At least one military or VA investigator is strongly encouraged to be included as an equal partner in the research, offering both intellectual investment and research effort.

A military or VA investigator is defined as an investigator who is active duty or active reserve and detailed to agencies outside of the DOD, civilian DOD investigators, or an investigator at a VA research facility. The military/VA investigator should have a substantial role in the research and should not be included only for access to active-duty military and/or VA populations.

• **Translation:** The application should provide evidence for the reciprocal transfer of information between basic and clinical science or vice-versa in developing and implementing the research plan. Translational research should be based on clinical trials. The application

should demonstrate how the study will leverage clinical information to address knowledge gaps in resulting outcomes, validate key research findings, and expand upon potentially translational results, or investigate novel findings.

- **Preliminary Data Required:** Clinical data that are relevant to the proposed studies must be included in the application and/or citations of the investigators' work.
- **Data Evaluation:** The proposed research should be rigorously designed to include a statistical plan and data analysis plan. The Translational Team Science Award is intended to have near-term relevance to patients; therefore, the statistical plan and data analysis plan should represent how significant the results and/or outcomes may be on patient outcomes.
- **Impact:** The proposed research should have the potential to have a significant impact on cancer research and/or patient care and the potential to accelerate the movement of promising ideas (in prevention, detection, diagnosis, prognosis, treatment, and/or survivorship) into clinical applications in at least one of the FY22 PRCRP Overarching Challenges in Section II.A.3.

Collaborations with a military/VA investigator are strongly encouraged. All PIs are encouraged to align their research projects with DOD and/or VA research laboratories and programs. While not a complete list, the following websites may be useful in identifying additional information about ongoing DOD and VA areas of research interest or potential opportunities for collaboration:

Air Force Research Laboratory <a href="https://www.afrl.af.mil/">https://www.afrl.af.mil/</a>

Armed Forces Radiobiology Research Institute https://www.usuhs.edu/afrri/

Defense Advanced Research Projects Agency <a href="https://www.darpa.mil/">https://www.darpa.mil/</a>

Defense Technical Information Center <a href="https://discover.dtic.mil/">https://discover.dtic.mil/</a>

Naval Health Research Center <a href="https://www.med.navy.mil/sites/nmrc/nhrc/P">https://www.med.navy.mil/sites/nmrc/nhrc/P</a> <a href="mages/default.aspx">ages/default.aspx</a>

Navy and Marine Corps Public Health Center <a href="https://www.med.navy.mil/sites/nmcphc/Pag">https://www.med.navy.mil/sites/nmcphc/Pag</a> <a href="es/Home.aspx">es/Home.aspx</a>

Office of Naval Research <a href="https://www.onr.navy.mil/">https://www.onr.navy.mil/</a>

Office of the Under Secretary of Defense for Acquisition, Technology and Logistics https://www.acq.osd.mil/

Uniformed Services University of the Health Sciences <a href="https://www.usuhs.edu/research">https://www.usuhs.edu/research</a>

U.S. Army Medical Research and Development Command <a href="https://mrdc.amedd.army.mil">https://mrdc.amedd.army.mil</a>

U.S. Army Research Laboratory <a href="https://www.arl.army.mil">https://www.arl.army.mil</a>

U.S. Department of Veterans Affairs, Office of Research and Development <a href="https://www.va.gov/oro/">https://www.va.gov/oro/</a>

U.S. Naval Research Laboratory <a href="https://www.nrl.navy.mil/">https://www.nrl.navy.mil/</a>

Walter Reed Army Institute of Research <a href="https://www.wrair.army.mil/">https://www.wrair.army.mil/</a>

*Cancer clinical research resources:* PIs are encouraged to review clinical research and/or trial information and resources available through the National Cancer Institute Cancer Therapy Evaluation Program (CTEP). Detailed information on the activities of the CTEP can be found at <a href="https://ctep.cancer.gov/default.htm">https://ctep.cancer.gov/default.htm</a>.

The Translational Team Science Award requires more than one Principal Investigator (PI). One PI will be identified as the Initiating PI and will be responsible for the majority of the administrative tasks associated with application submission. The other PI(s) will be identified as a Partnering PI. All PIs should contribute significantly to the development of the proposed research project, including the Project Narrative, Statement of Work (SOW), and other required components. If recommended for funding, each PI will be named to an individual award within the recipient organization. For individual submission requirements for the Initiating and Partnering PIs, refer to Section II.D.2, Content and Form of the Application Submission.

The types of awards made under the program announcement will be assistance agreements. An assistance agreement is appropriate when the federal government transfers a "thing of value" to a "state, local government," or "other recipient" to carry out a public purpose of support or stimulation authorized by a law of the United States instead of acquiring property or service for the direct benefit and use of the U.S. government. An assistance agreement can take the form of a grant or cooperative agreement. The level of involvement on the part of the DOD during project performance is the key factor in determining whether to award a grant or cooperative agreement. If "no substantial involvement" on the part of the funding agency is anticipated, a grant award will be made (31 USC 6304). Conversely, if substantial involvement on the part of the funding agency is anticipated, a cooperative agreement will be made (31 USC 6305), and the award will identify the specific substantial involvement. Substantial involvement may include, but is not limited to, collaboration, participation, or intervention in the research to be performed under the award. The award type, along with the start date, will be determined during the negotiation process.

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 them, provided they are within the limitations of this funding opportunity and fit within the FY22 PRCRP priorities.

Collaborations between researchers at military or Veteran institutions and non-military institutions are strongly encouraged. These relationships can leverage knowledge, infrastructure, and access to unique clinical populations that the partners bring to the research effort, ultimately advancing cancer research that is of significance to the Warfighter, military families, and the American public.

The anticipated direct costs budgeted for the entire period of performance for an FY22 Translational Team Science Award will not exceed \$2.5M. Refer to Section II.D.5, Funding Restrictions, for detailed funding information.

Awards will be made no later than September 30, 2023. For additional information refer to Section II.F.1, Federal Award Notices.

The CDMRP expects to allot approximately \$36M to fund approximately 9 Translational Team Science Award applications. Funding of applications received is contingent upon the availability of federal funds for this program as well as the number of applications received, the quality and merit of the applications as evaluated by scientific 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 FY22 funding opportunity will be funded with FY22 funds, which will expire for use on September 30, 2028.

Research Involving Human Anatomical Substances, Human Subjects, or Human Cadavers: All DOD-funded research involving new and ongoing research with human anatomical substances, human subjects, or human cadavers must be reviewed and approved by the USAMRDC Office of Research Protections (ORP), Human Research Protection Office (HRPO), prior to research implementation. This administrative review requirement is in addition to the local Institutional Review Board (IRB) or Ethics Committee (EC) review. Local IRB/EC approval at the time of submission is *not* required. Allow up to 3 months to complete the HRPO regulatory review and approval process following submission of *all required and complete* documents to the HRPO. Refer to the General Application Instructions, Appendix 1, and the Human Research Protections Office Resources and Overview document available on the electronic Biomedical Research Application Portal (eBRAP) "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm) for additional information.

If the proposed research involves more than one institution, a written plan for single IRB review arrangements must be provided at the time of application submission or award negotiation. The lead institution responsible for developing the master protocol and master consent form should be identified and should be the single point of contact for regulatory submissions and requirements.

#### Clinical trials are allowed.

A clinical trial is defined as a research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other control) to evaluate the effects of the interventions on biomedical or behavioral health-related outcomes. 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 the Code of Federal Regulations, Title 32, Part 219 (32 CFR 219).

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

*Clinical research is defined* as: (1) Patient-oriented research. Research conducted with human subjects (or on material of human origin such as tissues, specimens, and cognitive phenomena) for which an investigator (or colleague) directly interacts with human subjects. Excluded from this definition are in vitro studies that utilize human tissues that cannot be linked to a living

individual. Patient-oriented research includes: (a) mechanisms of human disease, (b) therapeutic interventions, (c) clinical trials, and (d) development of new technologies. (2) Epidemiologic and behavioral studies. (3) Outcomes research and health services research. *Note:* Studies that meet the requirements for IRB Exemption 4 are not considered CDMRP-defined clinical research. IRB Exemption 4 refers to research involving the collection or study of existing deidentified specimens or data, if these sources are publicly available.

**Use of DOD or VA Resources:** If the proposed research involves access to active-duty military patient populations and/or DOD or VA 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. Refer to <u>Section II.D.2.b.ii</u>, <u>Full Application Submission Components</u>, for detailed information. Refer to the General Application Instructions, Appendix 1, for additional information.

**Research Involving Animals:** All research funded by the FY22 PRCRP TTSA involving new and ongoing research with animals must be reviewed and approved by the USAMRDC ORP Animal Care and Use Review Office (ACURO), in addition to the local Institutional Animal Care and Use Committee (IACUC) of record. IACUC approval at the time of submission is *not* required. *Allow at least 3 to 4 months for ACURO regulatory review and approval processes for animal studies.* Refer to the General Application Instructions, Appendix 1, for additional information.

# **II.C.** Eligibility Information

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

II.C.1.a. Organization: All organizations, including foreign organizations, foreign public entities, and international organizations, are eligible to apply.

Government Agencies Within the United States: Local, state, and federal government agencies are eligible to the extent that applications do not overlap with their fully funded internal programs. Such agencies are required to explain how their applications do not overlap with their internal programs.

As applications for this program announcement may be submitted by extramural and intramural organizations, these terms are defined below.

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

Intramural DOD Organization: A DOD laboratory, DOD military treatment facility, and/or DOD activity embedded within a civilian medical center. Intramural Submission: An application submitted by a DOD organization for an intramural investigator working within a DOD laboratory or military treatment facility or in a DOD activity embedded within a civilian medical center.

## The USAMRAA makes awards to eligible organizations, not to individuals.

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

The investigator named as the Initiating PI on the application must be at or above the level of Assistant Professor or equivalent.

The investigator(s) named as the Partnering PI(s) on the application must be at or above the level of Assistant Professor or equivalent. Postdoctoral fellows are *not* eligible to be Initiating or Partnering PIs.

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

The CDMRP strongly encourages all PIs to participate in a digital identifier initiative through Open Researcher and Contributor ID, Inc. (ORCID). Registration for a unique ORCID identifier can be done online at <a href="https://orcid.org/">https://orcid.org/</a>.

# 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 in order to fulfill the financial and technical deliverable requirements of the award and submit invoices for payment.

For general information on required qualifications for award recipients, refer to the General Application Instructions, Appendix 3.

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

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

Submission of applications that are essentially identical or 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).

## II.D.1. eBRAP and Grants.gov

**eBRAP** (<a href="https://ebrap.org">https://ebrap.org</a>) is a secure web-based system that allows PIs to submit their preapplications, view and verify extramural full applications submitted to Grants.gov (<a href="https://grants.gov">https://grants.gov</a>), receive communications from the CDMRP, and submit documentation during award negotiations and throughout the period of performance. eBRAP also allows intramural organizations to submit full applications following pre-application submission.

**Grants.gov** is a federal system required to be utilized by agencies to receive and process extramural grant applications. Full applications may only be submitted to Grants.gov after submission of a pre-application through eBRAP.

Contact information for the eBRAP Help Desk and the Grants.gov Contact Center can be found in <u>Section II.G</u>, <u>Federal Awarding Agency Contacts</u>.

#### Extramural Submission:

- Pre-application content and forms must be accessed and submitted at eBRAP.org.
- Full application packages must be accessed and submitted at Grants.gov.

## Intramural DOD Submission:

- Pre-application content and forms must be accessed and submitted at eBRAP.org.
- Full application packages must be accessed and submitted at eBRAP.org.

Note: Applications from an intramural DOD organization or from an extramural federal government organization may be submitted to Grants.gov through a research foundation.

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

Submission is a two-step process requiring both *pre-application* (eBRAP.org) and *full application* (eBRAP.org or Grants.gov) as indicated below. The submission process should be started early to avoid missing deadlines. There are no grace periods. Full application submission guidelines differ for extramural (Grants.gov) and intramural (eBRAP.org) organizations (refer to <u>Table 1, Full Application Guidelines</u>).

The application title, eBRAP log number, 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.

The Initiating PI must complete the pre-application submission process and submit the contact information for each Partnering PI. Each Partnering PI will then be notified of the pre-application submission separately by email. Each Partnering PI must follow the link in the notification email in order to associate their full application package with that of the Initiating PI. After following the link, each Partnering PI must verify their contact information, organization, and designation as an extramural or intramural submission within eBRAP. If not previously registered, the Partnering PI(s) must register in eBRAP. A new pre-application based on this research project should not be initiated by the Partnering PI(s). Applicants are urged to complete these steps as soon as possible. If they are not completed, the Partnering PI(s) will not be able to view and modify their application during the verification period in eBRAP. If

these steps are not completed, an intramural partner will not be able to submit the Partnering PI's required full application package components to eBRAP.

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

During the pre-application process, eBRAP assigns each submission a unique log number. This unique eBRAP log number is required during the full application submission process.

To begin the pre-application process, first select whether the submitting organization is extramural or intramural, then confirm your selection or cancel. **Incorrect selection of extramural or intramural submission type will delay processing.** 

If an error has been made in the selection of extramural versus intramural and the pre-application submission deadline has passed, the PI or Business Official must contact the eBRAP Help Desk at <a href="help@eBRAP.org">help@eBRAP.org</a> or 301-682-5507 to request a change in designation.

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

The applicant organization and associated PIs identified in the pre-application should be the same as those intended for the subsequent application submission. If any changes are necessary after submission of the pre-application, the applicant must contact the eBRAP Help Desk at help@eBRAP.org or 301-682-5507.

PIs with an ORCID identifier should enter that information in the appropriate field in the "My Profile" tab in the "Account Information" section of eBRAP.

The pre-application consists of the following components, which are organized in eBRAP by separate tabs (refer to the General Application Instructions, Section II.B, for additional information on pre-application submission):

## • Tab 1 – Application Information

Submission of application information includes assignment of primary and secondary research classification codes, which may be found at <a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>. Applicants are strongly encouraged to review and confirm the codes prior to making their selection.

## • Tab 2 – Application Contacts

Enter contact information for the PI. Enter the organization's Business Official responsible for sponsored program administration (the "person to be contacted on matters involving this application" in Block 5 of the Grants.gov SF424 Research & Related Form). The Business Official must be either selected from the eBRAP list or invited in order for the preapplication to be submitted.

Select the performing organization (site at which the PI will perform the proposed work) and the contracting organization (organization submitting on behalf of the PI, which corresponds

to Block 5 on the Grants.gov SF424 Research & Related Form), and click on "Add Organizations to this Pre-application." The organization(s) must be either selected from the eBRAP drop-down list or invited in order for the pre-application to be submitted.

It is recommended that applicants identify an Alternate Submitter in the event that assistance with pre-application submission is needed.

# • Tab 3 – Collaborators and Key Personnel

Enter the name, organization, and role of all collaborators and key personnel associated with the application.

<u>FY22 PRCRP Programmatic Panel members</u> should not be involved in any pre-application or application. For questions related to panel members and pre-applications or applications, refer to <u>Section II.H.2.c</u>, <u>Withdrawal</u>, or contact the eBRAP Help Desk at <u>help@eBRAP.org</u> or 301-682-5507.

The Initiating PI must enter the contact information for each Partnering PI in the Partnering PI section.

#### • Tab 4 – Conflicts of Interest

List all individuals other than collaborators and key personnel who may have a conflict of interest in the review of the application (including those with whom the PI has a personal or professional relationship).

# • Tab 5 – Pre-Application Files

**Letter of Intent (LOI) (one-page limit):** Provide a brief description of the research to be conducted. Include the Topic Area under which the application will be submitted. LOIs are used for program planning purposes only (e.g., reviewer recruitment) and will not be reviewed during either the peer or programmatic review sessions. An invitation to submit is *not* required.

## • Tab 6 – Submit Pre-Application

This tab must be completed for the pre-application to be accepted and processed.

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

The CDMRP cannot make allowances/exceptions to its policies for submission problems encountered by the applicant organization using system-to-system interfaces with Grants.gov.

Each application submission must include the completed full application package for this program announcement. The full application package is submitted by the Authorized Organizational Representative through Grants.gov (<a href="https://grants.gov/">https://grants.gov/</a>) for extramural organizations or through eBRAP (<a href="https://ebrap.org/">https://ebrap.org/</a>) for intramural organizations. See Table 1 below for more specific guidelines.

## II.D.2.b.i. Full Application Guidelines

Extramural organizations must submit full applications through Grants.gov. Applicants must create a Grants.gov Workspace for submission, which allows the application components to be completed online and routed through the applicant organization for review prior to submission. Applicants may choose to download and save individual PDF forms rather than filling out webforms in Workspace. A compatible version of Adobe Reader **must** be used to view, complete, and submit an application package consisting of PDF forms. If more than one person is entering text into an application package, the *same version* of Adobe Reader software should be used by each person. Check the version number of the Adobe software on each user's computer to make sure the versions match. Using different versions of Adobe Reader may cause submission and/or save errors – even if each version is individually compatible with Grants.gov. Refer to the General Application Instructions, Section III, and the "Apply For Grants" page of Grants.gov (<a href="https://www.grants.gov/web/grants/applicants/apply-for-grants.html">https://www.grants.gov/web/grants/applicants/apply-for-grants.html</a>) for further information about the Grants.gov Workspace submission process. Submissions of extramural applications through eBRAP may be withdrawn.

Do not password protect any files of the application package, including the Project Narrative.

**Table 1. Full Application Submission Guidelines** 

Extramural Submissions	Intramural DOD Submissions			
Application Package Location				
Download application package components for W81XWH-22-PRCRP-TTSA from Grants.gov ( <a href="https://grants.gov">https://grants.gov</a> ) and create a Grants.gov Workspace. Workspace allows online completion of the application components and routing of the application package through the applicant organization for review prior to submission.	Download application package components for W81XWH-22-PRCRP-TTSA from eBRAP ( <a href="https://ebrap.org">https://ebrap.org</a> ).			
Full Application Package Components				
SF424 Research & Related Application for Federal Assistance Form: Refer to the General Application Instructions, Section III.A.1, for detailed information.	Tab 1 – Summary: Provide a summary of the application information.  Tab 2 – Application Contacts: This tab will be pre-populated by eBRAP; add Authorized Organizational Representative.			
Descriptions of each required file can be found under Full Application Submission Components:  • Attachments • Research & Related Personal Data • Research & Related Senior/Key Person Profile (Expanded) • Research & Related Budget	<ul> <li>Tab 3 – Full Application Files: Upload files under each Application Component in eBRAP. Descriptions of each required file can be found under Full Application Submission Components:</li> <li>Attachments</li> <li>Key Personnel</li> <li>Budget</li> </ul>			

Extramural Submissions	Intramural DOD Submissions
<ul> <li>Project/Performance Site Location(s) Form</li> <li>Research &amp; Related Subaward Budget         Attachment(s) Form     </li> </ul>	• Performance Sites  Tab 4 – Application and Budget Data: Review and edit proposed project start date, proposed end date, and budget data pre-populated from the Budget Form.

# **Application Package Submission**

## Create a Grants.gov Workspace.

Add participants (investigators and Business Officials) to Workspace, complete all required forms, and check for errors before submission.

Submit a Grants.gov Workspace Package. An application may be submitted through Workspace by clicking the "Sign and Submit" button on the "Manage Workspace" page, under the "Forms" tab. Grants.gov recommends submission of the application package at least 24-48 hours prior to the close date to allow time to correct any potential technical issues that may disrupt the application submission.

Note: If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated Grants.gov application package must be submitted via Grants.gov as a "Changed/Corrected Application" with the previous Grants.gov Tracking ID prior to the application submission deadline. Do not password protect any files of the application package, including the Project Narrative.

# Submit package components to eBRAP (<a href="https://ebrap.org">https://ebrap.org</a>).

Tab 5 – Submit/Request Approval Full Application: After all components are uploaded and prior to the full application submission deadline, enter your password in the space provided next to "Enter Your Password Here" and press the "Submit Full Application" button. eBRAP will notify your Resource Manager/Comptroller/Task Area Manager or equivalent Business Official by email. Do not password protect any files of the application package, including the Project Narrative.

## **Application Verification Period**

The full application package submitted to Grants.gov may be viewed and modified in eBRAP until the end of the application verification period. During the application verification period, the full application package may be modified with the exception of the Project Narrative and Research & Related Budget Form.

After eBRAP has processed the full application, the organizational Resource Manager/Comptroller/ Task Area Manager or equivalent Business Official and PIs will receive email notification of this status and will be able to view and modify application components in eBRAP. During the application verification period, the full application package may be modified with the exception of the Project Narrative and Research & Related Budget Form. Your Resource Manager/ Comptroller/Task Area Manager or equivalent Business Official should log into eBRAP to review

Extramural Submissions	Intramural DOD Submissions			
	and to approve prior to the application verification deadline.			
Further Information				
Tracking a Grants.gov Workspace Package.  After successfully submitting a Workspace package, a Grants.gov Tracking Number is automatically assigned to the package. The number will be listed on the "Confirmation" page that is generated after submission.  Refer to the General Application Instructions, Section III, for further information regarding Grants.gov requirements.	Refer to the General Application Instructions, Section IV, for further information regarding eBRAP requirements.			

The CDMRP requires separate full application package submissions for the Initiating PI and each Partnering PI, even if the PIs are located within the same organization. Initiating and Partnering PIs will each be assigned a unique eBRAP log number. Each full application package must be submitted using the unique eBRAP log number. *Note: All associated applications of the Initiating PI and each Partnering PI must be submitted by the full application submission deadline.* 

The full application package must be submitted using the unique eBRAP log number to avoid delays in application processing.

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

Extramural Applications Only

**SF424 Research & Related Application for Federal Assistance Form:** Refer to the General Application Instructions, Section III.A.1, for detailed information.

## • Extramural and Intramural Applications

#### **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 4.

For all attachments, ensure that the file names are consistent with the guidance. Attachments will be rejected if the file names are longer than 50 characters or have incorrect file names that contain characters other than the following: A-Z, a-z, 0-9, underscore, hyphen, space, and period. In addition, there are file size limits that may apply in some circumstances. Individual attachments may not exceed 20 megabytes (MB), and the file size for the entire full application package may not exceed 200 MB.

• Attachment 1: Project Narrative (12-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 to expand 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.

- Research Background and Objectives: Present the hypothesis and reasoning behind the proposed research. Describe the clinical research objectives and goals. Describe the clinical trial to be leveraged. Identify the critical knowledge gaps, key research, and potentially transformative findings, or novel outcomes from the clinical trial. Describe how the previous correlative trial outcomes relate and support the objectives and goals of the proposed study.
- Specific Aims: Concisely explain the project's specific aims. If this research project is a correlative study to a clinical trial and does not fund the clinical trial, present *only* the tasks that this award would fund.
- Relevance to Intent: Describe how the research will advance translational studies based on results from clinical investigations and will utilize information from the clinical trials for research that would then inform the clinic.
- Research Strategy and Feasibility: Describe the experimental design, methods, and analyses in sufficient detail for evaluation, including availability of resources (if applicable). Include details on outcomes or results from the clinical trial upon which this project will be based. Preliminary data such as published or unpublished results from the laboratory and/or clinic of the Initiating PI, Partnering PI(s), or collaborators named on this application and/or data from the published literature relevant to the proposed research project must be included to support the hypothesis or objectives. Describe potential problems and pitfalls and address alternative approaches. If animals are to be used, describe how the animal study (or studies) is designed to achieve the objectives, including the choice of model and endpoints/outcome measures to be used. Include how the proposed research addresses an important clinical and/or translational question relevant to at least one of the FY22 PRCRP Topic Areas in Section II.A.1 and at least one of the FY22 PRCRP Military Health Focus Areas in Section II.A.2. 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. If human subjects or human anatomical samples will be used, include a plan for the recruitment of subjects or the acquisition of samples and document the experience of the Initiating PI, Partnering PI(s), and/or key collaborators in recruiting human subjects for similar projects. *If funds for a* clinical trial are requested, details regarding the Clinical Trial Strategy must be outlined in Attachment 10. 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 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. If women and minorities are excluded, to what extent the application provided a rational justification.
- Attachment 2: Supporting Documentation: Combine and upload as a single file named "Support.pdf". Start each document on a new page. If documents are scanned to PDF, the lowest resolution (100 to 150 dpi) should be used. 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 that includes the full citation (i.e., author[s], year published, title of reference, source of reference, volume, chapter, page numbers, and publisher, as appropriate).

**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 or not 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 or organization that demonstrates that the PI has the support or resources necessary for the proposed work. If an investigator at an intramural organization is named as a collaborator on an application submitted through an extramural organization, the application must include a letter from the collaborator's Commander or Commanding Officer at the intramural organization that authorizes the collaborator's involvement.

**Intellectual Property:** Information can be found in 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.

**Data and Research Resources Sharing Plan:** Describe how data and resources generated during the performance of the project will be shared with the research community. Refer to the General Application Instructions, Appendix 2, Section K, for more information about the CDMRP 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 from 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. For VA PIs, if the VA non-profit corporation is not identified as the applicant institution 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. *Do not include proprietary or confidential information*. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

- Background: State the FY22 PRCRP Topic Area(s) in <u>Section II.A.1</u> to be addressed by the proposed research. State the FY22 PRCRP Military Health Focus Area(s) in <u>Section II.A.2</u> to be addressed. Present the ideas and reasoning behind the proposed work. Describe the clinical outcomes upon which the study is founded.
- Hypothesis/Objective: State the hypothesis to be tested and the objective to be reached. Describe the overall research goals.
- Specific Aims: State the specific aims of the study.
- Relevance to Intent: Describe how the research advances translational studies based on results from clinical investigations and utilizes the information to inform the clinic.
- **Study Design:** Briefly describe the study design, including appropriate controls.
- Collaboration/Translational Aspects: Describe how the proposed collaboration involves a substantial contribution by each partner and the reciprocal flow of ideas and information. Demonstrate how the translational collaboration will maximize the use of existing resources and minimize unnecessary duplication.
- Impact: Briefly describe how the proposed project will have a near-term impact on at least one of the FY22 PRCRP Topic Areas. State the FY22 PRCRP Overarching Challenge(s) in Section II.A.3 to be studied and describe how the research will make an impact
- Relevance to Military Health: Identify the <u>FY22 PRCRP Military Health Focus</u>
   <u>Area(s)</u> to be studied. Briefly describe how the proposed research is relevant to
   active-duty Service Members, Veterans, and other military beneficiaries.
- Attachment 4: Lay Abstract (one-page limit): Upload as "LayAbs.pdf". The lay abstract is used by all reviewers. Abstracts of all funded research projects will be posted publicly. Do not include proprietary or confidential information. Do not duplicate the technical abstract. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

Lay abstracts should be written using the outline below. Avoid overuse of acronyms and abbreviations, if possible. Describe the proposed research project by including the following elements in plain language.

- State the FY22 PRCRP Topic Area(s) in <u>Section II.A.1</u> and FY22 PRCRP Military Health Focus Area(s) in <u>Section II.A.2</u> to be addressed by the research project.
- Describe the scientific objective and rationale for the proposed project in a manner that will be *readily understood by readers without a background in science or medicine*.

- Relevance to Intent: Describe how the research advances translational studies based on results from clinical investigations and utilizes the information to inform the clinic.
- Describe the impact for patients and ultimate applicability of the research. What is the projected time it may take to achieve a patient-related outcome? What types of patients will it help and how will it help them? What are the potential clinical applications, benefits, and risks? What are the likely contributions of this study to advancing at least one of the FY22 PRCRP Topic Areas?
- State the FY22 PRCRP Overarching Challenge(s) in <u>Section II.A.3</u> to be studied and describe how the research will make an impact.
- Describe how the proposed research is relevant to active-duty Service Members, Veterans, and other military beneficiaries.
- Attachment 5: Statement of Work (three-page limit): Upload as "SOW.pdf". The suggested SOW format and examples specific to different types of research projects are 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>). Recommended strategies for assembling the SOW can be found at <a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>.

For the Translational Team Science Award, refer to either the "Suggested SOW Strategy Clinical Research" or "Suggested SOW Strategy Generic Research", whichever format is most appropriate for the proposed effort, and use the blank SOW format titled "Suggested SOW Format". The SOW must be in PDF format prior to attaching.

Each PI must submit an identical copy of a jointly created SOW. The contributions of the Initiating PI and each Partnering PI should be noted for each task.

- Attachment 6: Collaboration Plan (two-page limit): Upload as "CollabPlan.pdf".
  - Describe plans for communication, decision-making, allocation of resources, coordination of research progress and results, and sharing of data among all PIs and organizations participating in the project.
  - Describe the roles, responsibilities, and intellectual contribution of each partner in the proposed research. Describe how the project depends on the unique skills of each partner. Provide the time commitment for each partner. Describe how the proposed collaboration involves a substantial contribution by each partner and the reciprocal flow of ideas and information.
  - Describe the role and responsibility of the military or VA investigator in the overall research project (if applicable).
- Attachment 7: Research Outcomes Plan (one-page limit): Upload as
   "Outcomes.pdf". Describe the anticipated research outcomes (e.g., knowledge products, clinical products for further development). Describe the methods and strategies (e.g.,

funding opportunities, collaborations, and intellectual property rights) proposed to move the anticipated research outcomes to the next phase of development or clinical application after successful completion of the project. Detail the strategy to transition to the next level of investigation, development, and/or commercialization.

- Attachment 8: Relevance to Military Health Statement (one-page limit): Upload as "MilHealth.pdf". The Relevance to Military Health Statement will be evaluated by the FY22 PRCRP Programmatic Panel during programmatic review only.
  - State the FY22 PRCRP Military Health Focus Area(s) in <u>Section II.A.2</u> to be addressed in the study.
  - Based on published literature of the impact of cancer on military populations, articulate the relevance of the research proposed and show how it will decrease the burden of cancer on Service Members, their families, and Veterans.
  - Identify the environmental and/or exposure risk factors associated with the FY22 PRCRP Topic Area(s) in <u>Section II.A.1</u> to be studied and their short- and long-term impact on the basic health, welfare, and/or psychosocial wellness of active-duty Service Members, Veterans, and other military beneficiaries.

or

- 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 activeduty Service Members, Veterans, and other military beneficiaries.
- Describe the anticipated short-term 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.
- Attachment 9: Impact Statement (one-page limit): Upload as "Impact.pdf". *The Impact Statement should be written in plain language for lay persons*. State explicitly how the proposed work addresses a critical problem in at least one of the FY22 PRCRP Topic Areas in Section II.A.1.
  - Describe the translational impact of the proposed research.
  - In lay persons' terms explain the significance of the translational value of the proposed work based on potential clinical and/or patient outcomes or current treatment and care options.

- State the FY22 PRCRP Overarching Challenge(s) in <u>Section II.A.3</u> to be studied and describe how the research will decrease the burden of cancer on patients and/or caregivers.
- Attachment 10: 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 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, case-control, 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 Investigational New Drug/Investigational Device Exemption (IND/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.
- Attachment 11: Statistical Plan and Data Analysis (five-page limit): Upload as "Stats.pdf". All applicants are required to submit a Statistical Plan and Data Analysis.
   Describe the statistical methodology and plan including how it supports the stated

hypothesis or objective. If an existing dataset is to be used, describe the dataset and how it supports the aims of the project. State the inclusion and exclusion criteria for the subjects with sound rationale for the criteria, if applicable. Describe the power analysis and whether it determined population numbers; if not, justify why the power analysis is not essential to the statistical evaluation. State whether the study will include univariate, bivariate, or multivariate analyses. State the variables to be used in the main analysis; include covariates and how the data will be adjusted to account for covariates, if applicable. Stratification of data, if applicable, should be described and justified. For data management, describe methods for data collection (e.g., identifiers, confidentiality). Describe how the study will conform to the 1996 Health Insurance Portability and Accountability Act, if applicable. Explain data capture, verification, and disposition, if applicable. Describe the data management plans including generation, analyses, standards, and storage of the data. Describe how data evaluations will be made and how the storage of samples, including organization and maintenance of large datasets. Describe how data will be evaluated for reproducibility and adjusted for confounding variables. Articulate how large datasets will be evaluated, if applicable.

- Attachment 12: Letters Confirming Access to Target Military or VA Patient Population(s) or Resource(s) (e.g., Human Anatomical Substances, Databases), if applicable (one-page limit per letter): Upload as "Access.pdf". If the proposed research plan involves access to active-duty military and/or VA patient population(s) or resource(s), include a letter of support signed by the lowest-ranking person with approval authority, confirming such access. If access cannot be confirmed at the time of application submission, the government reserves the right to withhold or revoke funding until the PI has demonstrated support for and access to the relevant population(s) and/or resource(s).
- Attachment 13: Use of Hazardous Chemical or Biological Agents, if applicable (no page limit): Upload as "Hazardous.pdf". The applicant must submit a plan for acquiring, using, and maintaining hazardous agents if such agents are to be used in the study. The plan must contain all applicable information, such as Centers for Disease Control and Prevention registration, an approved organizational safety plan to use the agent(s), and letters of collaboration, agreement, or approval from government sites issuing any agent(s). Indicate whether agents to be used are purchased commercially, and, if so, confirm that the amount is under regulated limits. Include a statement addressing this requirement along with accompanying letters of collaboration, approvals, and certifications.
- O Attachment 14: Representations, if applicable (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/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>). For more information, see the General Application Instructions, Appendix 5, Section B, Representations.
- Attachment 15: Suggested Collaborating DOD Military Facility Budget Format, if applicable: Upload as "MFBudget.pdf". If a military facility (Military Health System facility, research laboratory, medical treatment facility, dental treatment facility, or a

DOD activity embedded with a civilian medical center) will be a collaborator in performance of the project, complete a separate budget, using "Suggested Collaborating DOD Military Facility Budget Format", available for download 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>), including a budget justification, for each military facility as instructed. The costs per year should be included on the Grants.gov Research & Related Budget Form under subaward costs. Refer to the General Application Instructions, Section III.A.8, for detailed information.

# • Extramural and Intramural Applications

To evaluate compliance with Title IX of the Education Amendments of 1972 (20 USC 1681[a] et seq.), the DOD is collecting certain demographic and career information to be able to assess the success rates of women who are proposed for key roles in applications in science, technology, engineering, and/or mathematics (STEM) disciplines. To enable this assessment, each application must include the following forms completed as indicated.

**Research & Related Personal Data:** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.3, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.2, for detailed information.

**Research & Related Senior/Key Person Profile (Expanded):** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.4, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.3, for detailed information.

- o PI Biographical Sketch (five-page limit): Upload as "Biosketch\_LastName.pdf". The suggested biographical sketch format 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. The National Institutes of Health (NIH) Biographical Sketch may also be used. All biographical sketches should be submitted in uneditable PDF format.
- PI Previous/Current/Pending Support (no page limit): Upload as "Support\_LastName.pdf".
  - For extramural submissions, refer to the General Application Instructions, Section III.A.4, for detailed information.
  - For intramural submissions, refer to the General Application Instructions, Section IV.A.3, for detailed information.
- 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".
  - For extramural submissions, refer to the General Application Instructions,
     Section III.A.4, for detailed information.
  - For intramural submissions, refer to the General Application Instructions, Section IV.A.3, for detailed information.

**Research & Related Budget:** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.5, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.4, for detailed information.

**Budget Justification (no page limit): Upload as "BudgetJustification.pdf".** The budget justification for the entire period of performance must be uploaded to the Research & Related Budget after completion of the budget for Period 1.

Initiating and Partnering PIs must have a separate budget and justification specific to their distinct portions of the effort that the applicant organization will submit as separate Grants.gov or eBRAP application packages. The Initiating PI should not include budget information for Partnering PI(s) even if they are located within the same organization. Refer to Section II.D.5, Funding Restrictions, for detailed information.

**Project/Performance Site Location(s) Form:** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.6, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.5, for detailed information.

## • Extramural Applications Only

**Research & Related Subaward Budget Attachment(s) Form (if applicable):** Refer to the General Application Instructions, Section III.A.7, for detailed information.

- Extramural Subaward: Complete the Research & Related Subaward Budget Form through Grants.gov. (Refer to the General Application Instructions, Section III.A.7, for detailed information.) Verify subaward budget(s) and budget justification forms are present in eBRAP during the application verification period. If these components are missing, upload them to eBRAP before the end of the application verification period.
- o Intramural DOD Collaborator(s): Complete the "Suggested Collaborating DOD Military Facility Budget Format" and upload to Grants.gov attachment form as <a href="Attachment 15"><u>Attachment 15</u></a>. (Refer to the General Application Instructions, Section IV.A.4, for detailed information.) Each Intramural DOD Collaborator should include costs per year on the Grants.gov Research & Related Budget Form under subaward costs.

**Suggested DOD Military Budget Format:** A military facility collaborating in the performance of the project (but not participating as a Partnering PI) should be treated as a

subaward for budget purposes. *Note:* Applicants should complete a separate military budget using "Suggested Collaborating DOD Military Facility Budget Format" (available for download on the eBRAP "Funding Opportunities & Forms" web page [https://ebrap.org/eBRAP/public/Program.htm]) (Attachment 15) to show all direct and indirect costs. The costs per year should be included on the Grants.gov Research & Related Budget Form under subaward costs. Refer to the General Application Instructions, Section III.A.8, for detailed information.

## **Application Components for each Partnering PI**

Each Partnering PI must follow the link in the email from eBRAP and, if not registered in eBRAP, complete the registration process prior to the application submission deadline in order to associate their full application package with that of the Initiating PI.

For each Partnering PI, the Initiating PI must identify if each Partnering PI will be named on an extramural or intramural application (in accordance with the guidelines in <a href="Section II.C.1.a">Section II.C.1.a</a>, <a href="Organization">Organization</a>) and the appropriate mode of submission (Grants.gov for extramural and eBRAP for intramural). Each Partnering PI must verify their contact information and mode of submission within eBRAP to ensure proper submission of their application.

The application submission process for each Partnering PI uses an abbreviated full application package that includes:

## • Extramural and Intramural Applications

## **Attachments:**

- Attachment 5: Statement of Work (three-page limit): Upload as "SOW.pdf". Refer to the General Application Instructions, Section III.A.2, for detailed information on completing the SOW. Each PI must submit an identical copy of a jointly created SOW. The contributions of the Initiating PI and each Partnering PI should be noted for each task.
- Attachment 14: 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 5, Section B, Representations.
- Attachment 15: Suggested Collaborating DOD Military Facility Budget Format: Upload as "MFBudget.pdf". Refer to the General Application Instructions, Section IV.A.4, for detailed information. The costs per year should be included on the Grants.gov Research & Related Budget Form under subaward costs.

**Research & Related Personal Data:** For extramural submissions (via Grants.gov) refer to the General Application Instructions, Section III.A.3, and for intramural submissions (via

eBRAP), refer to the General Application Instructions, Section IV.A.2, for detailed information.

**Research & Related Senior/Key Person Profile (Expanded):** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.4, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.3, for detailed information.

- o PI Biographical Sketch (five-page limit): Upload as "Biosketch\_LastName.pdf". The suggested biographical sketch format 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. The NIH Biographical Sketch may also be used. All biographical sketches should be submitted in the PDF format that is not editable.
- PI Previous/Current/Pending Support (no page limit): Upload as "Support LastName.pdf".
  - For extramural submissions, refer to the General Application Instructions, Section III.A.4, for detailed information.
  - For intramural submissions, refer to the General Application Instructions, Section IV.A.3, for detailed information.
- 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".
  - For extramural submissions, refer to the General Application Instructions, Section III.A.4, for detailed information.
  - For intramural submissions, refer to the General Application Instructions, Section IV.A.3, for detailed information.

**Research & Related Budget:** For extramural submissions, refer to the General Application Instructions, Section III.A.5, and for intramural submissions, refer to the General Application Instructions, Section IV.A.4, for detailed information.

Budget Justification (no page limit): Upload as "BudgetJustification.pdf".

Initiating and Partnering PIs must each submit a budget and justification specific to their own portion of the efforts as part of their separate Grants.gov or eBRAP application packages. The Research & Related Budget for each Partnering PI should not include budget information for the Initiating PI, even if they are located within the same organization. Refer to Section II.D.5, Funding Restrictions, for detailed information.

**Project/Performance Site Location(s) Form:** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.6, and for intramural submissions (via eBRAP), refer to General Application Instructions, Section IV.A.5, for detailed information.

## Extramural Applications Only

## Research & Related Subaward Budget Attachment(s) Form:

- Extramural Subaward: Complete the Research & Related Subaward Budget Form through Grants.gov. (Refer to the General Application Instructions, Section III.A.7, for detailed information.)
- Intramural DOD Collaborator(s): Complete a separate DOD military budget, using Suggested Collaborating DOD Military Facility Budget Format (available for download on the eBRAP "Funding Opportunities & Forms" web page [https://ebrap.org/eBRAP/public/Program.htm]), and upload to Grants.gov attachment form as Attachment 15. (Refer to the General Application Instructions, Section III.A.8, for detailed information.)

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

The applicant organization must be registered as an entity in SAM (https://www.sam.gov/SAM/) and receive confirmation of an "Active" status before submitting an application through Grants.gov. As published in the Federal Register, July 10, 2019, (https://www.federalregister.gov/documents/2019/07/10/2019-14665/unique-entity-id-standardfor-awards-management), the UEI for awards management generated through SAM will be used instead of the Data Universal Numbering System (DUNS) number as of April 2022. All federal awards including, but not limited to, contracts, grants, and cooperative agreements will use the UEI. USAMRDC will transition to use of the UEI beginning with FY22 announcements and utilize the latest SF424, which includes the UEI. The DUNS will no longer be accepted. Applicant organizations will not go to a third-party website to obtain an identifier. During the transition, your SAM registration will automatically be assigned a new UEI displayed in SAM. (For more information, visit the General Services Administration: https://www.gsa.gov/aboutus/organization/federal-acquisition-service/office-of-systems-management/integrated-awardenvironment-iae/iae-information-kit/unique-entity-identifier-update). Current SAM.gov registrants are assigned their UEI and can view it within SAM.gov. Authorized Organizational Representatives with existing eBRAP accounts should update their organizational profile to include the UEI prior to submission of the full application to Grant.gov (see Section II.D.4, Submission Dates and Times below). Refer to the General Application Instructions, Section III, for further information regarding Grants.gov requirements.

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

All submission dates and times are indicated in <u>Section I, Overview of the Funding Opportunity</u>. Pre-application and application submissions are required. 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.

## **Applicant Verification of Full Application Submission in eBRAP**

For Both Extramural and Intramural Applicants: eBRAP allows an organization's representatives and PIs to view and modify the full application submissions associated with them. Following retrieval and processing of the full application, eBRAP will notify the organizational representatives and PI by email to log into eBRAP to review, modify, and verify the full application submission. eBRAP will validate full application files against the specific program announcement requirements, and discrepancies will be noted in an email to the PI and in the "Full Application Files" tab in eBRAP. eBRAP does not confirm the accuracy of file content. Application viewing, modification, and verification in eBRAP are strongly recommended, but not required. It is the applicant's responsibility to review all application components and ensure proper ordering as specified in the program announcement. 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 application submission deadline. The Project Narrative and Research & Related Budget Form cannot be changed after the application submission deadline. Other application components may be changed until the end of the application verification period. Verify that subaward budget(s) and budget justification forms are present in eBRAP during the application verification period. If these components are missing, upload them to eBRAP before the end of the application verification period. After the end of the application verification period, the full application cannot be modified.

*Extramural Submission:* The full application package submitted to Grants.gov may be viewed and modified in eBRAP until the end of the application verification period. During the application verification period, the full application package, *with the exception of the Project Narrative and Budget Form*, may be modified.

Intramural DOD Submission: After eBRAP has processed the full application, the organizational Resource Manager/Comptroller/Task Area Manager or equivalent Business Official and PIs will receive email notification of the status and will be able to view and modify application components in eBRAP. During the application verification period, the full application package, with the exception of the Project Narrative and Budget Form, may be modified. The Resource Manager/Comptroller/Task Area Manager or equivalent Business Official should log into eBRAP to review and to approve the application package prior to the application verification deadline.

*For All Submissions:* Verify that subaward budget(s) with budget justification are present in eBRAP during the application verification period. If these components are missing, upload them to eBRAP before the end of the application verification period.

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

The maximum period of performance is **4** years.

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

The anticipated *combined* direct costs budgeted for the entire period of performance for the Initiating PI's and each Partnering PI's applications will not exceed \$2.5M. 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. The combined budgeted direct costs approved by the government will not exceed \$2.5M or use an indirect cost rate exceeding each organization's negotiated rate.

A separate award will be made to each PI's organization.

The PIs are expected to be partners in the research, and direct cost funding should be divided accordingly unless otherwise warranted and clearly justified.

For this award mechanism, direct costs may be requested for (not all-inclusive):

- Travel in support of multidisciplinary collaborations.
- Costs for three investigators to travel to two scientific/technical meetings per year. The intent of travel costs to scientific/technical meeting(s) is to present project information or disseminate project results from the FY22 PRCRP Translational Team Science Award.

For extramural awards with an intragovernmental component, direct transfer of funds from an extramural award recipient to a DOD or other federal agency is not allowed except under very limited circumstances. Funding to intramural DOD and other federal agencies will be managed through a direct funds transfer. Intramural applicants are responsible for coordinating through their agency's procedures the use of contractual or assistance funding awards or other appropriate agreements to support extramural collaborators.

Refer to the General Application Instructions, Section III.A.5, for budget regulations and instructions for the Research & Related Budget. For federal agencies or organizations collaborating with federal agencies, budget restrictions apply as are noted in the General Application Instructions, Section III.A.5.

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

Refer to the General Application Instructions, Appendix 4, 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 evaluated according to the following **scored criteria**, which are of equal importance:

## Research Strategy and Feasibility

- How well the application describes the experimental design and methods and whether the analyses are sufficient in detail for evaluation, including availability of resources (if applicable).
- Whether details on outcomes or results from the clinical trial upon which this project will be based are included and applied to the rationale for the study.
- Whether the preliminary data includes supports the hypothesis or objectives.
- To what extent the application articulates potential problems and potential pitfalls and addresses alternative approaches that are logical and reasonable to support the hypothesis.
- Whether the proposed research addresses an important clinical and/or translational question relevant to at least one of the FY22 PRCRP Topic Areas in Section II.A.1.
- o To what degree the application demonstrates the research is relevant to the intent of the Translational Team Science Award.
- Whether the application describes how the data will be reported and how it will be assured that the documentation will support a regulatory filing with the FDA, if applicable.
- Whether the application includes a plan for the recruitment of human subjects or the acquisition of samples and whether it documents the experience of the PI and/or key collaborators in recruiting human subjects for similar projects, if applicable.
- How well the animal study (or studies) is designed to achieve the objectives, including the choice of model and endpoints/outcome measures to be used, if applicable.
- 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.

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

- o To what extent the application justifies the 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.
- 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.
- 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.
- How well the clinical trial will inform correlative clinical research, if applicable.

#### Personnel and Collaboration

- Based on information in the biographical sketches, to what degree each PI has the research experience to function as a partner in the proposed collaborative project.
- Whether the roles, responsibilities, and intellectual contribution of each partner in the proposed research depend on the unique skills of each partner, including the time commitment for each partner.
- Whether the application describes a substantial contribution by each partner and how the reciprocal flow of ideas and information by partners will occur.
- o To what extent the plans for communication, decision-making, allocation of resources, coordination of research progress and results, and sharing of data among all PIs and organizations participating in the project support the advancement of the research.
- How well the application describes the role and responsibility of the military or VA investigator in the overall research project (if applicable).
- How appropriate the levels of effort are for successful conduct of the proposed work.

• **Partnering PI Option:** How the partners' combined expertise will better address the research question.

## Impact

- To what degree the proposed research impacts a translational question relevant to at least one of the FY22 PRCRP Topic Areas in <u>Section II.A.1</u>.
- How well the application articulates the significance of the translational value of the proposed work based on potential clinical and/or translational research outcomes, or current treatment and care options.
- o To what extent the impact of the proposed research on a FY22 PRCRP Overarching Challenge(s) will lead to a decrease of the burden of cancer on patients and/or caregivers.

# • Statistical Plan and Data Analysis (Peer Reviewers will review all applications for Statistical Plan and Data Analysis)

- To what extent the statistical methodology and plan supports the stated hypothesis or objective.
- o If applicable, how well the described dataset supports the aims of the project.
- If applicable, whether the inclusion and exclusion criteria for the subjects are sound and rational.
- How well the application describes the power analysis and whether it determined population numbers. If applicable, how well the application justifies why a power analysis is not essential to the statistical evaluation.
- How clearly the application states whether the analyses will be univariate, bivariate, or multivariate.
- How well the variables are described and any covariates identified (if applicable). How well the application accounts for covariates and whether the adjustment is justified (if applicable).
- o If applicable, how well the stratification of data is described and if it is justified.
- How well the data management is described and justified to include all methods for data collection (e.g., identifiers, confidentiality).
- To what extent the data management plans support the generation, analyses, standardization, and storage of data.
- How well the application explains data capture, verification, and disposition, if applicable.

- If applicable for laboratory projects, the extent to which evaluations to be made, storage of samples, and organization and maintenance of large datasets are described and justified.
- To what extent the data have been evaluated for reproducibility and adjusted for confounding variables.
- Whether there is a plan to evaluate large datasets, if applicable.
- Whether the application describes plans to confirm to the 1996 Health Insurance Portability and Accountability Act, if applicable.

In addition, the following **unscored criteria** will also contribute to the overall evaluation of the application:

#### • Research Outcomes Plan

- Whether the application describes the anticipated research outcomes (e.g., knowledge products, clinical products for development).
- How well the application demonstrates methods (e.g., funding opportunities, collaborations, and intellectual property rights) to move the anticipated research outcomes to the next phase of development or clinical application after successful completion of the project.
- o To what degree the application offers a well laid-out strategy to transition to the next level of investigation, development, and/or commercialization.

### Budget

- Whether the **direct** costs exceed the allowable direct costs as published in the program announcement.
- Whether the budget is appropriate for the proposed research.
- Whether there may be significant overlap with existing or pending awards of the Initiating PI or the Partnering PI(s).
- If applicable, whether the application clearly indicates the origin of the funding of the proposed clinical trial.

#### Environment

- o To what degree the scientific environments are appropriate for the proposed research.
- To what degree the research requirements are supported by the availability of and accessibility to facilities and resources.

- To what degree the quality and extent of institutional support are appropriate.
- o If applicable, to what degree the intellectual and material property plan is appropriate.

## • Application Presentation

- To what extent the writing, clarity, and presentation of the application components influence the review.
- Whether the lay abstract and impact statement were written with clarity for lay persons.

## **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 mission of the Defense Health Program and FY22 PRCRP, as evidenced by the following:
  - Adherence to the intent of the award mechanism
  - Program portfolio composition
  - Programmatic relevance to the FY22 PRCRP Military Health Focus Areas
  - Programmatic relevance to the <u>FY22 PRCRP Overarching Challenges</u>
  - Relative translational potential
  - Relative impact

## **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 Section II.E.1.b, Programmatic Review*. Additional information about the two-tier process used by the CDMRP can be found at <a href="https://cdmrp.army.mil/about/2tierRevProcess">https://cdmrp.army.mil/about/2tierRevProcess</a>. An information paper describing the funding recommendations and review process for the award mechanisms for the PRCRP will be provided to the PIs and posted on the CDMRP website.

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 panel. Violations of confidentiality can result in the dissolving 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 another 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 the Federal Awardee Performance and Integrity Information System (FAPIIS).

An applicant organization may review FAPIIS, accessible through SAM, and submit comments to FAPIIS on any information about the organization that a federal awarding agency previously entered and is currently available in FAPIIS.

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.E.4.** Anticipated Announcement and Federal Award Dates

All application review dates and times are indicated in <u>Section I, Overview of the Funding</u> Opportunity.

Each PI and organization will receive email notification of posting of the funding recommendation in eBRAP. Each PI will receive a peer review summary statement on the strengths and weaknesses of the application.

## II.F. Federal Award Administration Information

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

Awards supported with FY22 funds are anticipated to be made no later than September 30, 2023. Refer to the General Application Instructions, Appendix 2, for additional award administration information.

After email notification of application review results through eBRAP, and if selected for funding, a representative from the USAMRAA will contact the Business Official authorized to negotiate on behalf of the PI's organization.

**Pre-Award Costs:** An institution of higher education, hospital, or non-profit 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. Refer to the General Application Instructions, Section III.A.5.

Only an appointed USAMRAA Grants Officer may obligate the government to the expenditure of funds. 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.

**Federal Government Organizations:** Funding made to federal government organizations (to include intramural DOD organizations) will be executed through the Military Interdepartmental Purchase Request (MIPR) or Funding Authorization Document (FAD) process. Transfer of funds is contingent upon appropriate safety and administrative approvals. Intramural applicants and collaborators are reminded to coordinate receipt and commitment of funds through their respective Resource Manager/Task Area Manager/Comptroller or equivalent Business Official.

## **II.F.1.a.** PI Changes and Award Transfers

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.

An organizational transfer of an award supporting the Initiating PI or Partnering PI is discouraged and will be evaluated on a case-by-case basis and only allowed at the discretion of the Grants Officer.

Unless otherwise restricted, changes in PI will be allowed at the discretion of the USAMRAA Grants Officer, provided the intent of the award mechanism is met.

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 2, Section B, for general information on organization or PI changes.

## **II.F.2.** 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 2, for general information regarding administrative requirements.

Refer to the General Application Instructions, Appendix 5, for general information regarding national policy requirements.

Refer to full text of the latest <u>DoD R&D General Terms and Conditions</u>; the <u>USAMRAA</u> <u>General Research Terms and Conditions with Institutions of Higher Education, Hospitals, and Non-Profit Organizations: Addendum to the DoD R&D General Terms and Conditions; and the <u>USAMRAA General Research Terms and Conditions with For-Profit Organizations</u>, for further information.</u>

*New Requirement:* Certification Regarding Disclosure of Funding Sources. The proposing entity must comply with Section 223(a) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, which requires that the PI, Partnering PIs (if applicable), and all key personnel:

- Certify that the current and pending support provided on the application is current, accurate, and complete;
- Agree to update such disclosure at the request of the agency prior to the award of support and at any subsequent time the agency determines appropriate during the term of the award; and
- Have been made aware of the requirements under Section 223(a)(1) of this Act.

False, fictitious, or fraudulent statements or claims may result in criminal, civil, or administrative penalties (18 USC 1001).

## II.F.3. Reporting

Refer to the General Application Instructions, Appendix 2, Section A, for general information on reporting requirements. If there are technical reporting requirement delinquencies for any existing USAMRAA-sponsored awards at the applicant organization, no new awards will be issued to the applicant organization until all delinquent reports have been submitted.

Annual progress reports as well as a final progress report will be required.

The Award Terms and Conditions will specify if more frequent reporting is 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 if and how the research supported by this award will progress and must include source(s) of funding, either known or pending.

Public Health Service (PHS) Inclusion Enrollment Reporting Requirement: Enrollment reporting on the basis of sex/gender, race, and/or ethnicity 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 \$10M are required to provide information to FAPIIS 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 5, Section B).

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

## II.G.1. eBRAP Help Desk

Questions related to program announcement content or submission requirements as well as questions related to the pre-application or intramural application submission through eBRAP should be directed to the eBRAP Help Desk, which is available Monday through Friday from 8:00 a.m. to 5:00 p.m. ET. Response times may vary depending upon the volume of inquiries.

Phone: 301-682-5507

Email: <a href="mailto:help@eBRAP.org">help@eBRAP.org</a>

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

Questions related to extramural application submission through Grants.gov portal should be directed to the Grants.gov Contact Center, which is available 24 hours a day, 7 days a week (closed on U.S. federal holidays). Note that the eBRAP Help Desk is unable to provide technical assistance with Grants.gov submission.

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

Email: <a href="mailto:support@grants.gov">support@grants.gov</a>

Sign up on Grants.gov for "send me change notification emails" by following the link on the "Synopsis" page for the program announcement or by responding to the prompt provided by Grants.gov when first downloading the Grants.gov application package. If the Grants.gov application package is updated or changed, the original version of the application package may not be accepted by 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 702a. The program announcement numeric version code will match the General Application Instructions version code 702.

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

After receipt of applications, the following administrative actions may occur:

## II.H.2.a. Rejection

The following will result in administrative rejection of the application:

- Pre-application was not submitted.
- 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 application:

- An FY22 PRCRP 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. A list of the FY22 PRCRP Programmatic Panel members can be found at <a href="https://cdmrp.army.mil/prcrp/panels/panels22">https://cdmrp.army.mil/prcrp/panels/panels22</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.
- Page size is larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).

- To preserve the integrity of its peer and programmatic review processes, the CDMRP discourages inclusion of any employee of its review contractors having any role in the preparation, research or other duties for submitted applications. For FY22, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (<a href="https://cdmrp.army.mil/about/2tierRevProcess">https://cdmrp.army.mil/about/2tierRevProcess</a>). Applications that include names of personnel from either of these companies may be administratively withdrawn.
- 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 may be withdrawn.
- Applications submitted by an intramural DOD organization may be withdrawn if the intramural organization cannot coordinate the use of contractual, assistance, or other appropriate agreements to provide funds to extramural collaborators.
- Submission of the same research project to different funding opportunities within the same program and fiscal year.
- Failure to submit all associated (Initiating and Partnering PI) applications by the deadline.
- The application does not address at least one of the FY22 PRCRP Topic Areas in Section II.A.1.
- The application does not address at least one of the FY22 PRCRP Military Health Focus Areas in Section II.A.2.
- The application does not address at least one of the FY22 PRCRP Overarching Challenges in Section II.A.3.
- An application proposing a clinical trial where <u>Attachment 10: Clinical Trial Strategy</u> is missing.
- The application does not submit <u>Attachment 11: Statistical Plan and Data Analysis</u>.
- The application does not adhere to congressional language and proposes breast, kidney, lung, pancreatic, prostate, ovarian, rare cancer, and melanoma 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. Application Submission Checklist

Application Components	Action	Initiating PI Completed	Partnering PI Completed
SF424 Research & Related Application for Federal Assistance (extramural submissions only)	Complete form as instructed		
Summary (Tab 1) and Application Contacts (Tab 2) (intramural submissions only)	Complete tabs as instructed		
Attachments	Project Narrative: Upload as Attachment 1 with file name "ProjectNarrative.pdf" Supporting Documentation: Upload as Attachment 2 with file name "Support.pdf" Technical Abstract: Upload as Attachment 3 with file name "TechAbs.pdf" Lay Abstract: Upload as Attachment 4 with file name "LayAbs.pdf" Statement of Work: Upload as Attachment 5 with file name "SOW.pdf" Collaboration Plan: Upload as Attachment 6 with file name "CollabPlan.pdf" Research Outcomes Plan: Upload as Attachment 7 with file name "Outcomes.pdf" Relevance to Military Health Statement: Upload as Attachment 8 with file name "MilHealth.pdf" Impact Statement: Upload as Attachment 9 with file name "Impact.pdf" Clinical Strategy Statement: Upload as Attachment 10 with file name "Clinical.pdf" if applicable Statistical Plan and Data Analysis: Upload as Attachment 11 with file name "Stats.pdf"		

Application Components	Action	Initiating PI Completed	Partnering PI Completed
	Letters Confirming Access to Target		
	Military or VA Patient Population(s) or		
	Resource(s) (e.g., Human/Animal		
	Anatomical Substances, Databases):		
	Upload as Attachment 12 with file name		
	"Access.pdf" if applicable		
	Use of Hazardous Chemical or Biological		
	Agents: Upload as Attachment 13 with		
	file name "Hazardous.pdf" if applicable		
	Representations (extramural submissions		
	only): Upload as Attachment 14 with file		
	name "RequiredReps.pdf"		
	Suggested Collaborating DOD Military		
	Facility Budget Format: Upload as		
	Attachment 15 with file name		
	"MFBudget.pdf" if applicable		
Research & Related	Complete form as instructed		
Personal Data	•		
	Attach PI Biographical Sketch		
Research & Related Senior/Key Person Profile (Expanded)	(Biosketch_LastName.pdf) to the		
	appropriate field		
	Attach PI Previous/Current/Pending		
	Support (Support_LastName.pdf) to the		
	appropriate field		
	Attach Biographical Sketch		
	(Biosketch_LastName.pdf) for each		
	senior/key person to the appropriate field		
	Attach Previous/Current/Pending		
	(Support_LastName.pdf) for each		
	senior/key person to the appropriate field		
Research & Related	Complete as instructed. Attach Budget		
Budget (extramural	Justification (BudgetJustification.pdf) to		
submissions only)	the appropriate field		
Budget (intramural	Complete the Suggested DOD Military		
submissions only)	Budget Format, including justification		
Project/Performance	Complete form as instructed		
Site Location(s) Form	Complete form as monucleu		
Research & Related	Complete form as instructed		
Subaward Budget			
Attachment(s) Form			

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

ACOS/R&D Associate Chief of Staff for Research and Development

ACURO Animal Care and Use Review Office

CDMRP Congressionally Directed Medical Research Programs

CFR Code of Federal Regulations

DOD Department of Defense

DoDGARs Department of Defense Grant and Agreement Regulations

DUNS Data Universal Numbering System

eBRAP Electronic Biomedical Research Application Portal

EC Ethics Committee

ET Eastern Time

FAD Funding Authorization Document

FAPIIS Federal Awardee Performance and Integrity Information System

FDA Food and Drug Administration

FY Fiscal Year

HRPO Human Research Protection Office

IACUC Institutional Animal Care and Use Committee

IDE Investigational Device Exemption

IND Investigational New Drug

IRB Institutional Review Board

LOI Letter of Intent

M Million

MHS Military Health System

MIPR Military Interdepartmental Purchase Request

NIH National Institutes of Health

ORCID Open Researcher and Contributor ID, Inc.

ORP Office of Research Protections

PHS Public Health Service
PI Principal Investigator

PRCRP Peer Reviewed Cancer Research Program

RDT&E Research, Development, Test, and Evaluation

SAM System for Award Management

SOW Statement of Work

STEM Science, Technology, Engineering, and/or Mathematics

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 Department of Veterans Affairs