

# **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**

**Convergent Science Cancer Consortium Development Award**

**Announcement Type: Initial**

**Funding Opportunity Number: W81XWH-22-PRCRP-CSCCDA**

**Assistance Listing Number: 12.420 Military Medical  
Research and Development**

## **SUBMISSION AND REVIEW DATES AND TIMES**

- **Pre-Application Submission Deadline:** 5:00 p.m. Eastern time (ET), August 17, 2022
- **Application Submission Deadline:** 11:59 p.m. ET, September 7, 2022
- **End of Application Verification Period:** 5:00 p.m. ET, September 14, 2022
- **Peer Review:** November 2022
- **Programmatic Review:** February 2023

*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.”*

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## 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 quality of life by decreasing the impact of cancer on active-duty 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 Convergent Science Cancer Consortium Development Award **must** address **at least three different** congressionally directed FY22 PRCRP Topic Areas. Congressional language stipulates the FY22 PRCRP must not fund research into breast, kidney, lung, pancreatic, prostate, ovarian, rare cancers, 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 three different FY22 PRCRP Topic Areas, applications for the FY22 PRCRP Convergent Science Cancer Consortium Development 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) ([https://cdmnp.army.mil/pubs/video/prc/prcrp\\_vision\\_video](https://cdmnp.army.mil/pubs/video/prc/prcrp_vision_video)). 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

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

risk factors for cancer, applicants should refer to Exposure Related Health Concerns at <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 ([https://cdmrp.army.mil/pubs/video/prc/prcrp\\_vision\\_video](https://cdmrp.army.mil/pubs/video/prc/prcrp_vision_video)).
- PRCRP (<https://cdmrp.army.mil/prcrp/default>).
- Military Health System (MHS) (<https://www.health.mil>).
- 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 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.
- 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.
- 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**

- Transform cancer treatment through the identification of new targets, especially for advanced disease and metastasis.
- 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**

- 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.
  - 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 PRCRP seeks to promote novel approaches to ending cancer through convergent science cancer research. This effort will be executed through two separate award mechanisms, the Convergent Science Cancer Consortium Development Award in FY22 and the anticipated Convergent Science Cancer Consortium Award in FY24.

Convergent science as defined by the National Science Foundation (<https://www.nsf.gov/od/oia/convergence/index.jsp>) *“is a means of solving vexing research problems, in particular, complex problems focusing on societal needs. It entails integrating knowledge, methods, and expertise from different disciplines and forming novel frameworks to catalyze scientific discovery and innovation.”* Convergent science taps into a variety of disciplines to answer the issues in cancer (i.e., prevention, diagnosis/detection, treatment, quality of life) including but not limited to biomedical sciences, data science, engineering, psychology, and chemistry. As a more holistic approach, convergent science offers clinicians, scientists, and patients the opportunity to fight cancer on various fronts beyond what is offered by multidisciplinary approaches by merging sciences together. Convergent science breaks down the barriers of cancer research and builds a whole answer with tools from different areas of expertise.

Initiatives such as the Cancer Moonshot aim to decrease the death rate of cancer by 50% over the next 25 years and improve the experience of patients, their families, and caregivers. The goals set by initiatives such as the Cancer Moonshot require innovative and unique approaches to ending cancer. The FY22 Convergent Science Cancer Consortium Development Award and the anticipated FY24 Convergent Science Cancer Consortium Award answer the call to find groundbreaking ways through convergent science research to improve quality of life by decreasing the burden of cancer on Service Members, their families, Veterans, and the American public.

The eligible applicants of the FY22 Convergent Science Cancer Consortium Development Award are expected to submit an application to compete for the Convergent Science Cancer Consortium Award anticipated to be offered in FY24. The PRCRP expects to fund three FY22 Convergent Science Cancer Consortium Development Awards, depending on the number and the quality of applications received. The PRCRP reserves the right to open the FY24 Convergent Science Cancer Consortium Award to all eligible applicants that meet the requirements of the anticipated FY24 Convergent Science Cancer Consortium Award, and/or to re-release the

Convergent Science Cancer Consortium Development Award in FY24 if the goals of the FY22 Convergent Science Cancer Consortium Development Award are not met.

Applications for the FY22 Convergent Science Cancer Consortium Development Award are being requested. The FY22 Convergent Science Cancer Consortium Development is a convergent science infrastructure *and* research mechanism that provides support to create a Coordinating Center, to establish the necessary collaborations, and to demonstrate the utility of convergent science in cancer science through its application in active research projects.

**Consortium Development Description:** The consortium must be a diverse discipline coalition, including a Coordinating Center (a research site) and at least *two* additional Research Sites. All Research Sites will be responsible for working collaboratively and providing available research resources to the consortium. The Consortium Director, i.e., the Principal Investigator (PI) of the Coordinating Center, must have a proven record of accomplishment of leadership and the scientific ability to direct and oversee the overall research effort. The PI at the Coordinating Center (Consortium Director) or a collaborator (co-PI) must have experience in convergent science theory. The Convergent Science Cancer Consortium Development Award will support a strong collaboration of clinicians and researchers to build the overarching structure of a consortium. ***The PI and the co-PIs in the consortium should be clinicians and scientists who have diverse experience in different disciplines and different cancers.*** Research infrastructure development includes (but is not limited to) establishing appropriate collaborations, outlining an administrative management plan, developing research management and communication plans, and devising and implementing an intellectual property plan.

***Research projects must be based on the principles of convergent science.*** The PIs must be working in different FY22 PRCRP Topic Areas and addressing one of the FY22 Overarching Challenges as a unifying focal point for the consortium. ***The application must propose work in at least three different FY22 PRCRP Topic Areas.*** For example, brain cancer, neuroblastoma, and pediatric brain tumors are three of the FY22 PRCRP Topic Areas and would be acceptable. Three different types of pediatric brain tumors (i.e., pediatric medulloblastomas, diffuse intrinsic pontine glioma, and pediatric astrocytomas) are not considered three different FY22 PRCRP Topic Areas and would not be acceptable. ***It is incumbent upon the applicants to clearly define how their application investigates at least three different FY22 PRCRP Topic Areas.*** The FY22 Convergent Science Cancer Consortium Development Award is a proof-of-principle funding opportunity, where the research projects must demonstrate the utility of using a convergent approach to elucidate the complexities of cancer. At least three research projects should be proposed with collaboration for their success based on the contribution of all PIs' different expertise.

By the end of the award, the utility of convergent science and the infrastructure of the consortium should be established. The mechanics of a consortium must be initiated to maximize the use of resources and standardization of procedures, and to minimize unnecessary duplication among consortium members; for example, experimental techniques, databases, models, antibodies, biomarker tools, phenotyping processes, etc., should be shared resources for all consortium members. The goal is for the consortium to function as a convergent science unit rather than as a collection of different sites, with unified processes. The Coordinating Center and the Research Sites should have all regulatory, material, and intellectual property agreements in

place by the end of the award. Any delays should be well documented and justified with a mitigation plan in place to be considered for funding under the anticipated FY24 Convergent Science Cancer Consortium Award. Plans to expand to additional Research Sites should be in place by the end of the FY22 Convergent Science Cancer Consortium Development Award.

**Coordinating Center:** The Coordinating Center, in addition to functioning as a Research Site, will serve as the consortium information and planning nexus, providing administrative, operational, and data management support services to implement consortium studies in a timely manner. The Coordinating Center must be a Research Site for the future multi-institutional research.

***Key Aspects of the Coordinating Center:***

- Experience in establishing multi-institutional collaborations.
- Expertise in convergent science.
- Facilitate consortium-wide communications to optimize and accelerate research progress; communication between and among consortium members is essential to realizing the consortium's objectives.
- Provide effective, coordinated plans that integrate and optimize the research and collaborations within the consortium.
- Development of standard operating procedures.
- Other responsibilities to include: study coordination, study management and monitoring, regulatory coordination, data collection procedures and monitoring, data management and statistics, and intellectual/material property coordination.
- Facilitate outreach plans to develop future convergent science research sites.

**Principal Investigator:** The PI on the application will be the Consortium Director and the PI for the Coordinating Center. The PI should have a proven record of accomplishment of leadership and scientific ability to direct and oversee a multi-institutional research effort. As the PI is responsible for the day-to-day management of the consortium, the PI is expected to commit at least 10% level of effort to direct and manage a project of this magnitude.

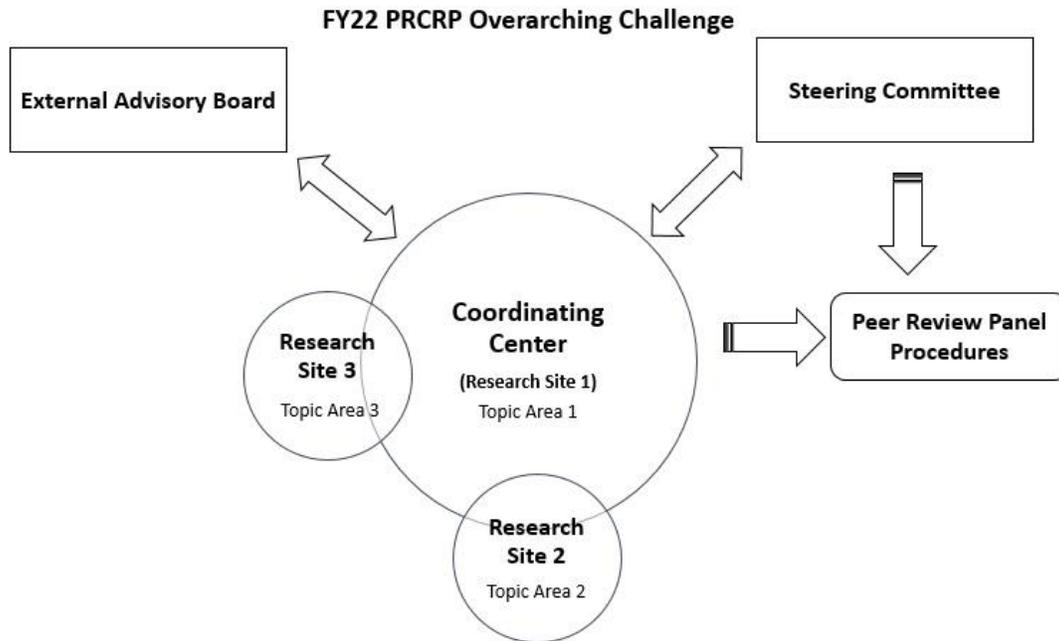
**Research Sites:** Each of the co-PIs for the Research Sites should contribute unique research resources and different expertise to the consortium. Of utmost importance is the convergence of different scientific disciplines to interrogate the complexities of cancer research. Core facilities for areas of expertise may be established at select Research Sites. Research Sites, including the Coordinating Center, should demonstrate access to appropriate resources, biorepositories (if applicable), and cancer patient populations. The co-PIs for the Research Sites should have a proven record of accomplishment of collaboration and demonstrate dedication to achieving a convergent scientific method to decrease suffering from cancer. Each co-PI will be responsible for the day-to-day management of the individual Research Site. Data and materials generated from the Research Sites should be made available as shared resources. Management plans for

sharing of resources and data should be clearly explained in detail. Each co-PI is expected to commit at least 10% level of effort to direct and manage a Research Site. Each Research Site must propose research into a FY22 PRCRP Topic Area. The Convergent Science Cancer Consortium Development Award must be investigating *at least three different FY22 PRCRP Topic Areas* under one selected FY22 PRCRP Overarching Challenge.

***The Coordinating Center will be responsible for coordinating and funding an external scientific peer review of projects proposed for funding at all sites during the future Consortium Award.*** The Coordinating Center will provide a plan for development and implementation of protocols, external peer review procedures for the future Consortium, and prioritization of research. Leveraging of funding and resources from additional sources, including industry, private sector, and other federal organizations, is encouraged.

**Steering Committee:** The consortium will establish a Steering Committee, to include the co-PIs from each Research Site, the PI from the Coordinating Center, patient advocates, and experts in military health. The patient advocates must be cancer patients from the FY22 Topic Areas (not including breast, kidney, lung, pancreatic, prostate, ovarian, rare cancer, and melanoma), or caretakers for someone with cancer, and possess a high level of familiarity with current issues in cancer research. The consumer advocates' role in the committee should be independent of their employment with a participating institution. The experts in military health may be active-duty Service Members or retired Service Members with experience in military health and cancer, or VA representatives with a deep understanding of military health and cancer. During the consortium's period of performance, the Coordinating Center PI will chair the Steering Committee. The Steering Committee will meet regularly to monitor the status of ongoing consortium studies and to review research progress. The Steering Committee will be responsible, in coordination with the Coordinating Center, for developing standard operating procedures and peer review procedures that will be adopted for consortium studies. The Steering Committee may establish working groups or other scientific committees to ensure successful operation of the consortium.

**Oversight of the Consortium Development Award:** An External Advisory Board (EAB) composed of cancer researchers who are not involved with the consortium, PRCRP Programmatic Panel members, and USAMRDC representatives will provide administrative and scientific guidance to the Grants Officer's Representative (GOR). The EAB Chair and representatives from USAMRDC will be invited to regular meetings of the Steering Committee and must be provided agendas and minutes for these meetings. The Coordinating Center PI and Research Site PIs must present written and oral briefings to the EAB and USAMRDC staff at semi-annual 1-day meetings in the National Capital Region. Based on these reports and presentations, the Grants Officer Representative (GOR), with input from the EAB and USAMRDC staff, will evaluate progress, provide feedback, and recommend to the USAMRAA Grants Officer actions to be taken as needed to facilitate the success of the Convergent Science Cancer Consortium Development Award toward a fully functioning consortium. The Coordinating Center PI will also be required to submit quarterly progress reports and a final comprehensive written report of the consortium's accomplishments to the USAMRDC. Figure 1 presents a chart showing the structure of the expected consortium.



**Figure 1.** *The Organization of the Convergent Science Cancer Consortium showing the Coordinating Center (also functions as Research Site 1), Research Site 2, and Research Site 3 as well as the External Advisory Board and Steering Committee. External Peer Review procedures for a future Consortium will be established. The Convergent Science Cancer Consortium organization will include three different FY22 PRCRP cancers addressing one PRCRP Overarching Challenge.*

The Coordinating Center plus two Research Sites must submit a single application for the FY22 Convergent Science Cancer Consortium Development Award. ***A single award will be made to the Coordinating Center, which will provide management oversight and funding, via subawards or other appropriate instruments, to the Research Sites.*** Award funds are to be used to support the Coordinating Center’s efforts and the consortium development-associated activities at each Research Site.

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 stage and recurrent patients. As a member of the Metastatic Cancer Task Force, CDMRP encourages applicants to review the recommendations (<https://health.mil/Reference-Center/Congressional-Testimonies/2018/05/03/Metastatic-Cancer-Research>) and submit research ideas to address these recommendations 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 PRCRP Convergent Science Cancer Consortium Development 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 \$12.0M to fund approximately three Convergent Science Cancer Consortium Development 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.

***The FY22 Convergent Science Cancer Consortium Development Award does not allow clinical trials, but clinical trial protocol development is 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.

***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 de-identified 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 [Section II.D.2.b.ii, Full Application Submission Components](#), for detailed information. Refer to the General Application Instructions, Appendix 1, for additional information.

**Research Involving Animals:** All research funded by the FY22 [PRCRP award mechanism] 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**

- **PI for the Coordinating Center (Consortium Director):**

To be named as the PI for the Coordinating Center on the application, the Consortium Director must:

- Be at or above the level of Associate Professor (or equivalent).
- Have a proven record of accomplishment of leadership and scientific ability to direct and oversee a multi-institutional research effort.
- Commit at least 10% level of effort to direct and manage a project of this magnitude.

- **Co-PI for the Research Site:**

To be named as the Research Site co-PI on the application, the co-PI must:

- Be at or above the level of Assistant Professor (or equivalent).
- Have a proven record of accomplishment of collaboration.
- Commit at least 10% level of effort to direct and manage a Research Site.

***The Consortium Director at the Coordinating Center or one of the co-PIs must have experience in convergent science theory.***

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 <https://orcid.org/>.

### **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 [Section II.H.2, Administrative Actions](#), 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** (<https://ebrap.org>) is a secure web-based system that allows PIs to submit their pre-applications, view and verify extramural full applications submitted to Grants.gov (<https://grants.gov>), 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 [Section II.G, Federal Awarding Agency Contacts](#).

#### ***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 [Table 1, Full Application Guidelines](#)).

***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](mailto:help@eBRAP.org) or 301-682-5507 prior to the application submission deadline.

#### **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 [help@eBRAP.org](mailto:help@eBRAP.org) or 301-682-5507 to request a change in designation.

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

The applicant organization and associated PI 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 CDMRP Help Desk at [help@eBRAP.org](mailto: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 <https://ebrap.org/eBRAP/public/Program.htm>. 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 pre-application 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.

[FY22 PRCRP Programmatic Panel members](#) should not be involved in any pre-application or application. For questions related to panel members and pre-applications or applications, refer to [Section II.H.2.c, Withdrawal](#), or contact the CDMRP Help Desk at [help@eBRAP.org](mailto:help@eBRAP.org) or 301-682-5507.

- **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 three different FY22 Topic Areas(s) (listed in [Section II.A.1](#)) 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**

An invitation to submit a full application to the Convergent Science Cancer Consortium Development Award *is not* required.

***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 (<https://grants.gov/>) for extramural organizations or through eBRAP (<https://ebrap.org/>) 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 (<https://www.grants.gov/web/grants/applicants/apply-for-grants.html>) 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
<b>Application Package Location</b>	
<p>Download application package components for W81XWH-22-PRCRP-CSCCDA 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.</p>	<p>Download application package components for W81XWH-22-PRCRP-CSCCDA from eBRAP (<a href="https://ebrap.org">https://ebrap.org</a>).</p>
<b>Full Application Package Components</b>	
<p><b>SF424 Research &amp; Related Application for Federal Assistance Form:</b> Refer to the General Application Instructions, Section III.A.1, for detailed information.</p>	<p><b>Tab 1 – Summary:</b> Provide a summary of the application information.</p> <p><b>Tab 2 – Application Contacts:</b> This tab will be pre-populated by eBRAP; add Authorized Organizational Representative.</p>
<p>Descriptions of each required file can be found under Full Application Submission Components:</p> <ul style="list-style-type: none"> <li>• <a href="#">Attachments</a></li> <li>• <a href="#">Research &amp; Related Personal Data</a></li> <li>• <a href="#">Research &amp; Related Senior/Key Person Profile (Expanded)</a></li> <li>• <a href="#">Research &amp; Related Budget</a></li> <li>• <a href="#">Project/Performance Site Location(s) Form</a></li> <li>• <a href="#">Research &amp; Related Subaward Budget Attachment(s) Form</a></li> </ul>	<p><b>Tab 3 – Full Application Files:</b> Upload files under each Application Component in eBRAP. Descriptions of each required file can be found under Full Application Submission Components:</p> <ul style="list-style-type: none"> <li>• <a href="#">Attachments</a></li> <li>• <a href="#">Key Personnel</a></li> <li>• <a href="#">Budget</a></li> <li>• <a href="#">Performance Sites</a></li> </ul> <p><b>Tab 4 – Application and Budget Data:</b> Review and edit proposed project start date, proposed end date, and budget data pre-populated from the Budget Form.</p>
<b>Application Package Submission</b>	
<p><b>Create a Grants.gov Workspace.</b> Add participants (investigators and Business Officials) to Workspace, complete all required forms, and check for errors before submission.</p> <p><b>Submit a Grants.gov Workspace Package.</b> 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 <b>at least 24-48 hours prior to the close date</b> to allow time</p>	<p><b>Submit package components to eBRAP</b> (<a href="https://ebrap.org">https://ebrap.org</a>).</p> <p><b>Tab 5 – Submit/Request Approval Full Application:</b> 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. <b><i>Do not password</i></b></p>

Extramural Submissions	Intramural DOD Submissions
<p>to correct any potential technical issues that may disrupt the application submission.</p> <p><b>Note:</b> 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 <i>prior to</i> the application submission deadline. <b>Do not password protect any files of the application package, including the Project Narrative.</b></p>	<p><b><i>protect any files of the application package, including the Project Narrative.</i></b></p>
<b><u>Application Verification Period</u></b>	
<p>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 <b><i>with the exception of the Project Narrative and Research &amp; Related Budget Form.</i></b></p>	<p>After eBRAP has processed the full application, the organizational Resource Manager/Comptroller/ Task Area Manager or equivalent Business Official and PI 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 <b><i>with the exception of the Project Narrative and Research &amp; Related Budget Form.</i></b> Your Resource Manager/ Comptroller/Task Area Manager or equivalent Business Official should log into eBRAP to review and to approve prior to the application verification deadline.</p>
<b>Further Information</b>	
<p><b>Tracking a Grants.gov Workspace Package.</b> 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.</p> <p>Refer to the General Application Instructions, Section III, for further information regarding Grants.gov requirements.</p>	<p>Refer to the General Application Instructions, Section IV, for further information regarding eBRAP requirements.</p>

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 (20-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.

**Background and Experience:** Describe the Convergent Science Cancer Consortium Director’s background and experience as an established cancer researcher. Include key participants at the Coordinating Center and the two other Research Sites. Describe previous experience and accomplishments of the PI and co-PIs related to the design, administration, and management of multi-institutional convergent science research projects. List the different research disciplines that each PI and co-PI will bring to the consortium. Explain how the complementary experience of the investigators will catapult novel solutions to cancer research and care. Describe how the expertise of each PI may contribute to understanding the commonalities of cancer. Articulate the overall goals with respect to convergence of different cancers. Describe the qualifications of the consortium member institutions and personnel. *Each member’s roles and responsibilities will be described on [Attachment 6: Convergent Science Statement](#).*

**FY22 PRCRP Topic Areas and FY22 Overarching Challenge:** Discuss how convergent science research will employ a single FY22 PRCRP Overarching Challenge

to the gaps in cancer care and research to unite *at least three different FY22 PRCRP Topic Areas*.

**Structure of the Consortium:** Provide a description of the projected consortium organization. Describe the research and communication plan for developing the consortium. Include plans for assessing the performance of each Research Site. Outline the development of resource and data sharing plans, and the development of standardized methods across all sites including data entry and storage. Describe experimental strategies to optimize standardization of procedures across multi-institutional sites. Include a brief description of the available resources and how unnecessary duplication of resources among consortium members will be minimized. Describe plans for communication, decision-making, allocation of resources, coordination of research progress and results, and sharing of data among all organizations participating in the project. Describe plans for centralized sample storage and access, if applicable. Discuss the creation and organization of the external advisory board and the steering committee. Discuss the bylaws to be considered by the EAB and Steering Committee. Describe the considered peer review procedures to be implemented. Articulate how the consortium would prepare for additional Research Sites in the future that may cover different topic areas.

**Research Strategy and Feasibility:** Describe a minimum of three projects in three different FY22 PRCRP Topic Areas that will demonstrate the proof of principle of how convergent science offers a unique, innovative, and successful approach to cancer research. Include the aims for each project and how the aims will support the selected FY22 PRCRP Overarching challenge. Describe the scientific rationale of the projects. Describe the experimental design, methods, and analyses, including appropriate controls, in sufficient detail for evaluation. Discuss innovative methods, collaborations, and patient involvement to be incorporated into the proposed consortium. Address potential problem areas and present alternative methods and approaches. If preliminary data are presented, describe how it supports the hypothesis or objectives to be tested. Describe the human subject population to be studied and access to the designated population. If applicable, describe the statistical plan with appropriate power analysis and how it supports the experimental methodology. Research projects may include preclinical studies in animal models, or clinical research involving human subjects and human anatomical substances. *The FY22 Convergent Science Cancer Consortium Development Award does not allow clinical trials.* 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 PI and/or key collaborators in recruiting human subjects for similar projects. Demonstrate the availability of tissue, data, or human subjects, if applicable.

- If applicable, describe how the proposed research using animals meets the regulatory guidelines for appropriateness and robustness of experimental design.
- 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.

- **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 the Code of Federal Regulations, Title 2, Part 200.315 (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.

**Inclusion of Women and Minorities (if applicable):** Provide an anticipated enrollment table(s) for the inclusion of women and minorities appropriate to the objectives of the study with the proposed enrollment distributed on the basis of sex/gender, race, and ethnicity. The Public Health Service (PHS) Inclusion Enrollment Report format is a one-page fillable PDF form, which can be downloaded from eBRAP at <https://ebrap.org/eBRAP/public/Program.htm>.

- **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.

Technical abstracts should be written using the outline below:

- **Background:** Present the ideas and reasoning behind the proposed Convergent Science Cancer Consortium Development Award application. Describe the vision of convergent science and how it will be employed in the unification of different sciences and cancers for a more holistic approach to research.
- **Consortium:** Describe the proposed general management and organizational structure of the consortium. Outline the management and research expertise of consortium personnel at the Coordinating Center and Research Sites.
- **Objective:** State the objectives to be reached for each FY22 PRCRP Topic Area under a unifying FY22 PRCRP Overarching Challenge.
- **Collaboration:** Describe how the proposed collaboration involves a substantial contribution by each partner and the reciprocal flow of ideas and information. Demonstrate how the consortium research collaboration will maximize the use of existing resources and minimize unnecessary duplication.
- **Impact:** State the FY22 PRCRP Overarching Challenge(s) in [Section II.A.3](#) to be addressed and describe how the Overarching Challenge(s) will act as a unifying focal point for at least three different FY22 PRCRP Topic Areas undertaken by the consortium.
- **Relevance to Military Health:** 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 project by including the following elements in plain language:

- Present the ideas and reasoning behind the proposed Convergent Science Cancer Consortium Development Award application in a manner *readily understood by readers without a background in science or medicine.*
- List the different scientific disciplines to be employed and how they will offer a synergistic and holistic approach to ending the suffering from cancer.
- State the FY22 PRCRP Overarching Challenge(s) in [Section II.A.3](#) to be studied and describe how the Overarching Challenge(s) will act as a unifying focal point for at least three different FY22 PRCRP Topic Areas undertaken by the consortium.

- What types of patients will the research help? What are the potential clinical outcomes, benefits, and risks? What is the projected time it may take to achieve a patient-related outcome? What are the likely contributions of this consortium to advancing the vision of the PRCRP to decrease the burden of cancer on Service Members, their families, Veterans, and the American public through collaboration and discovery?
- Describe how the proposed research will benefit active-duty Service Members, Veterans, and other military beneficiaries.
- **Attachment 5: Statement of Work (SOW) (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 (<https://ebrap.org/eBRAP/public/Program.htm>). Recommended strategies for assembling the SOW can be found at <https://ebrap.org/eBRAP/public/Program.htm>.

For the Convergent Science Cancer Consortium Development Award mechanism, refer to the “*Suggested SOW Strategy Generic Research*” document for guidance on preparing the SOW and use the blank SOW format titled “Suggested SOW Format”. The SOW must be in PDF format prior to attaching.

- **Attachment 6: Convergent Science Statement (three-page limit): Upload as “Convergent.pdf”.** Articulate how the PI and each co-PI bring different expertise and experience to the consortium to pursue answers to gaps in at least three different FY22 PRCRP Topic Areas. Explain the PI’s and co-PIs’ knowledge base and how it will be critical to the implementation of the convergent science approach to cancer research. Discuss the theories, methods, data, and research communities that will merge to respond to one FY22 PRCRP Overarching Challenge and how that Overarching Challenge presents a current hurdle in cancer research (specifically in at least three different FY22 PRCRP Topic Areas to be studied).

Explain how the Convergent Science Cancer Consortium proposed will bring together diverse researchers and how it will develop ways to communicate and understand different disciplines. Describe how the Convergent Science Cancer Consortium will release information on the utility of convergent science in cancer research to the greater scientific community.

Describe each team member’s role and responsibilities, as well as intellectual contribution to the proposed consortium. Describe how the project depends on each investigator’s unique skills. Provide the time commitment for the PI and co-PIs.

*A figure may be included within the 3 page limit.*

- **Attachment 7: Vision Statement (one-page limit): Upload as “Vision.pdf”.** Articulate the Convergent Science Cancer Consortium PIs’ vision of convergent science and what it offers toward solving the complexities of cancer research and care. Identify one FY22 PRCRP Overarching Challenges that will be at the unifying core of the

consortium and how the vision will lead to an innovative approach to answering the current gaps in the different cancers studied.

- **Attachment 8: Impact Statement (one-page limit): Upload as “Impact.pdf”.**

In lay persons’ terms, state explicitly how the proposed consortium addresses cancer research in terms of convergent science and how this novel approach will leapfrog the field forward in at least three different FY22 PRCRP Topic Areas. Describe how the proposed consortium will employ one of the FY22 PRCRP Overarching Challenges to unite the different cancers through convergent science theory.

In laypersons’ terms explain the significance of the proposed research projects and how it will significantly impact (in the short term or long term) patient outcomes or current treatment or care options.

- **Attachment 9: Patient Advocate Involvement Statement (two-page limit): Upload as “Advocate.pdf”.** The Patient Advocate Involvement Statement should be written by the PI. *Provide the name of at least two patient advocates and their affiliations the [FY22 PRCRP Topic Areas](#) and cancer advocacy organization(s).* Describe the integral roles that the patient advocate on the Steering Committee will play in the planning, design, implementation, and evaluation of the research. Describe how the patient advocate’s knowledge of current cancer issues in the FY22 PRCRP Topic Areas and how their background will contribute to the consortium.
- **Attachment 10: Transition to Consortium Statement (three-page limit): Upload as “Transition.pdf”.** Describe the methods and strategies proposed to move the proposed consortium to the next phase of development at the end of this award, i.e., toward an expansion to a fully functioning consortium. The transition plan should include a schedule and milestones. It should also include a description of plans and potential funding sources to continue clinical research beyond the FY22 Convergent Science Cancer Consortium Development Award if the applicant is not awarded an FY24 Convergent Science Cancer Consortium Award or in the event that FY24 PRCRP funding is not available.
- **Attachment 11: Relevance to Military Health Statement (two-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.*
  - *Provide the name of at least one expert in military health and their service or VA affiliations.* Describe the integral roles that the military health expert on the Steering Committee will play in the planning, design, implementation, and evaluation of the research. Describe how the military health expert’s knowledge of current cancer issues in the military in the FY22 PRCRP Topic Areas and how their background will contribute to the proposed consortium.
  - State the FY22 PRCRP Military Health Focus Area(s) in [Section II.A.2](#) 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 [Section II.A.1](#) to be studied and their short-term 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 active-duty 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 12: Representations, if applicable (extramural submissions only): Upload as “RequiredReps.pdf”.** All extramural applicants must complete and submit the Required Representations template available on eBRAP (<https://ebrap.org/eBRAP/public/Program.htm>). For more information, see the General Application Instructions, Appendix 5, Section B, Representations.
- **Attachment 13: 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 <https://ebrap.org/eBRAP/public/Program.htm>), 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.

- 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 (<https://ebrap.org/eBRAP/public/Program.htm>) in eBRAP. The National Institutes of Health 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.

**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.
- **Intramural DOD Collaborator(s):** Complete the “Suggested Collaborating DOD Military Facility Budget Format” and upload to Grants.gov attachment form as [Attachment 13](#). (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.

### **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-standard-for-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/about-us/organization/federal-acquisition-service/office-of-systems-management/integrated-award-environment-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 [Section I, Overview of the Funding Opportunity](#). 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 PI 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 **2** years.

The anticipated direct costs budgeted for the entire period of performance 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. No budget will be approved by the

government exceeding **\$2.5M** direct costs or using an indirect cost rate exceeding the organization's negotiated rate.

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

The applicant may request the entire maximum funding amount for a project that may have a period of performance less than the maximum **2** years.

For this award mechanism, funding must be requested for:

- ***Kickoff Meeting:*** Travel costs for the Coordinating Center PI and the Research Site co-PIs to initiate the Convergent Science Cancer Consortium Development Award project and meet with the USAMRAA Grants Officer, the USAMRDC ORP representative, and the CDMRP PRCRP Program Manager, GOR, and Science Officer. For planning purposes, it should be assumed that the meeting will be held in the National Capital Region. These travel costs are in addition to those allowed for annual scientific/technical meetings.
- ***In-person Meeting:*** Travel costs for the Coordinating Center PI and the Research Site co-PIs to report on the progress of the Convergent Science Cancer Consortium Development Award project and meet with the USAMRAA Grants Officer, the USAMRDC ORP representative, and the CDMRP PRCRP Program Manager, GOR, Science Officer, and Programmatic Panel members. For planning purposes, it should be assumed that the meeting will be held in the National Capital Region. These travel costs are in addition to those allowed for annual scientific/technical meetings.
- ***External Advisory Board Meetings:*** Travel costs for the Coordinating Center PI and the Research Site co-PIs to disseminate project results at up to three PRCRP EAB meetings. For planning purposes, it should be assumed that the meetings will be held in the National Capital Region. These travel costs are in addition to those allowed for annual scientific/technical meetings. Virtual meetings will be considered with justification.

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**. Convergent science is the most important. The remaining criteria, of equal value, follow convergent science in importance.

- **Convergent Science**

- How well each PI and co-PI bring different expertise and experience to the consortium to pursue answers to gaps in at least three different FY22 PRCRP Topic Areas. How well the Convergent Science Cancer Consortium will bring together diverse researchers to develop ways to communicate and understand different disciplines.
- Whether the PI's and co-PIs' knowledge base will be critical to the implementation of the convergent science approach to cancer research. Whether the project depends on each investigator's unique skills.
- To what degree each team member's role and responsibilities, as well as intellectual contribution to the proposed consortium, support the novel convergent science approach to cancer.
- How well the application articulates the theories, methods, data, and research communities that will merge to respond to one FY22 PRCRP Overarching Challenge and whether the selected Overarching Challenge presents a current hurdle in cancer research, specifically in at least three different FY22 PRCRP Topic Areas to be studied.
- Whether the Convergent Science Cancer Consortium has sufficient plans to release information on the utility of convergent science in cancer research to the greater scientific community.
- Whether the time commitment for the PI and co-PIs is sufficient to build the consortium infrastructure and perform the proof-of-principle research projects.

- **Consortium Structure**

- Whether the consortium includes a Coordinating Center with a Research Site and two more Research Sites with at least three different FY22 PRCRP Topic Areas.
- How well the research and communication plan is described and supports the development of the consortium. Whether it includes plans for assessing the performance of each Research Site.
- Whether the development of resource and data sharing plans, and the development of standardized methods across all sites, including data entry and storage, is sufficient to

support the consortium. How well experimental strategies will optimize standardization of procedures across multi-institutional sites.

- To what extent the plans for communication, decision-making, allocation of resources, coordination of research progress and results, and sharing of data among all organizations support the consortium structure.
- Whether plans for centralized sample storage and access are supportive of the project, if applicable.
- To what extent the external advisory board and the steering committee support the success of the consortium, and whether the bylaws for the EAB and Steering Committee support a strong centralized organization of the consortium.
- To what extent the peer review procedures are described in relation to how the consortium would prepare for additional Research Sites in the future that may cover different topic areas.

- **Research Strategy and Feasibility**

- To what degree at least three projects are described and support proof-of-principle projects to demonstrate that convergent science offers a unique, innovative, and successful approach to cancer research.
- Whether the research projects address at least three different FY22 PRCRP Topic Areas.
- Whether aims for each project are included and address the selected FY22 PRCRP Overarching Challenge.
- To what degree the scientific rationale of the projects supports the aims of each project.
- To what extent the experimental design, methods, and analyses, including appropriate controls, support the aims of each project.
- Whether innovative methods, collaborations, and patient involvement are incorporated into the proposed consortium.
- To what extent potential problem areas and current alternative methods and approaches are presented for each project and are appropriate.
- Whether preliminary data support the hypothesis or objectives to be tested.
- To what extent the human subject population to be studied is described and its access to the designated population delineated.
- To what extent the statistical plan, with appropriate power analysis, supports the experimental methodology for each project, if applicable. Whether a plan for the

recruitment of subjects or the acquisition of samples is presented and appropriate for each project, if applicable.

- Whether the PI, co-PIs, and/or key collaborators have experience recruiting human subjects for similar projects. Whether the availability of tissue, data, or human subjects, if applicable, is demonstrated.
- If applicable, whether the proposed research using animals meets the regulatory guidelines for appropriateness and robustness of experimental design.
- 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.

- **Vision**

- To what degree the PI's and co-PIs' vision of convergent science supports using convergent science to solve the complexities of cancer research and care.
- Whether one FY22 PRCRP Overarching Challenge is selected and to what degree it will be the unifying core of the consortium to lead to an innovative approach for answering the current gaps in the different cancers studied.

- **Impact**

- How well the proposed consortium addresses cancer research in terms of convergent science and how well the novel approach will leapfrog the field forward in at least three FY22 PRCRP Topic Areas.
- How well the proposed consortium will employ one of the FY22 PRCRP Overarching Challenges to unite the different cancers through convergent science theory.
- To what degree the proposed research projects will significantly impact (in the short or long term) patient outcomes or current treatment or care options.

- **Patient Advocate Involvement**

- Whether the application provides the name of at least two patient advocates and their affiliations to the [FY22 PRCRP Topic Areas](#) and cancer advocacy organization(s).
- To what degree the roles of patient advocates on the Steering Committee are significant in the planning, design, implementation, and evaluation of the research.

- To what degree the patient advocate's knowledge and background in the FY22 PRCRP Topic Areas will contribute to the consortium.

- **Transition to Consortium**

- To what extent the methods and strategies proposed will move the proposed consortium to the next phase of development at the end of this award, i.e., toward an expansion to a fully functioning consortium.
- Whether a schedule and milestones are included and appropriate.
- To what extent there are plans for potential funding sources to continue clinical research beyond the FY22 Convergent Science Cancer Consortium Development Award if the applicant is not awarded an FY24 Convergent Science Cancer Consortium Award or in the event that FY24 PRCRP funding is not available.

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

- **Personnel**

- How well the PI's (Consortium Director's) qualifications and experience demonstrate appropriate expertise in the design, organization, and management of multi-institutional research projects.
- The degree of experience the PI and each co-PI have to function as a partner in the proposed collaborative project.
- The extent to which the PI and each co-PI, including the military or VA investigator (if applicable), will substantially contribute to the development and implementation of the consortium development plans and to the reciprocal flow of information.
- Whether the PI and co-PIs have committed to at least 10% level of effort for this project.

- **Budget**

- Whether the maximum direct costs are equal to or less than the allowable maximum direct costs as published in the program announcement.
- Whether the budget is appropriate for consortium establishment and proposed research effort.

- **Environment**

- 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.

### **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
  - Relative significance of convergent science to the consortium
  - Programmatic relevance to the FY22 PRCRP Military Health Focus Areas
  - Programmatic relevance to at least three different FY22 PRCRP Topic Areas
  - Programmatic relevance to FY22 PRCRP Overarching Challenges
  - Relative impact of the military health expert on the proposed consortium
  - 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 <https://cdmrp.army.mil/about/2tierRevProcess>. An information paper describing the funding recommendations and review process for the award mechanisms for the PRCRP will be provided to the PI 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 [Section I, Overview of the Funding 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**

Changes in PI and co-PIs are not allowed, except under extenuating circumstances that will be evaluated on a case-by-case basis and at the discretion of the Grants Officer.

The organizational transfer of the Coordinating Center to another institution is not allowed. The transfer of Research Sites is strongly discouraged and in most cases will not be allowed. Approval of a transfer request will be on a case-by-case basis at the discretion of the Grants Officer.

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

Refer to the General Application Instructions, Appendix 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 [DoD R&D General Terms and Conditions](#); the [USAMRAA 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 [USAMRAA General Research Terms and Conditions with For-Profit Organizations](#), for further information.

**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 technical progress reports in addition to final progress reports will be required. Reports must be in the form of a single comprehensive report encompassing activities at the Coordinating Center and all Research Sites.

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 (<https://ebrap.org/eBRAP/public/Program.htm>) 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 (*only required for clinical research studies*):** 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 (<https://ebrap.org/eBRAP/public/Program.htm>) 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: [help@eBRAP.org](mailto:help@eBRAP.org)

### **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: [support@grants.gov](mailto:support@grants.gov)

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 <https://cdmrp.army.mil/prcrp/panels/panels22>.*
- 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 (<https://cdmrp.army.mil/about/2tierRevProcess>). 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.
- Applications in which the Coordinating Center PI or the Research Site co-PIs do not meet the eligibility requirements may be withdrawn.
- The PI or co-PI does not commit at least 10% effort for the proposed Convergent Science Cancer Consortium Development Award.
- The application does not adhere to congressional language and proposes breast, kidney, lung, pancreatic, prostate, ovarian, and rare cancer and melanoma research.
- Applications proposing funds for the support of a clinical trial. *Note:* Funds for development of clinical trial protocols, etc., are allowed.
- The application does not address *at least three different* 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 one of the FY22 PRCRP Overarching Challenges in [Section II.A.3.](#)

#### **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	Completed
SF424 Research & Related Application for Federal Assistance ( <b>extramural submissions only</b> )	Complete form as instructed	
Summary (Tab 1) and Application Contacts (Tab 2) ( <b>intramural submissions only</b> )	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"	
	Convergent Science Statement: Upload as Attachment 6 with file name "Convergent.pdf".	
	Vision Statement: Upload as Attachment 7 with file name "Vision.pdf".	
	Impact Statement: Upload as Attachment 8 with file name "Impact.pdf"	
	Patient Advocate Involvement Statement: Upload as Attachment 9 "Advocate.pdf"	
	Transition to Consortium Statement: Upload as Attachment 10 "Transition.pdf"	
	Relevance to Military Health Statement: Upload as Attachment 11 "MilHealth.pdf"	
	Representations (extramural submissions only): Upload as Attachment 12 with file name "RequiredReps.pdf"	
	Suggested Collaborating DOD Military Facility Budget Format: Upload as Attachment 13 with file name "MFBudget.pdf" if applicable	
Research & Related Personal Data	Complete form as instructed	

Application Components	Action	Completed
Research & Related Senior/Key Person Profile (Expanded)	Attach PI Biographical Sketch (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 Budget ( <b>extramural submissions only</b> )	Complete as instructed. Attach Budget Justification (BudgetJustification.pdf) to the appropriate field	
Budget ( <b>intramural submissions only</b> )	Suggested DOD Military Budget Format, including justification	
Project/Performance Site Location(s) Form	Complete form as instructed	
Research & Related Subaward Budget Attachment(s) Form, if applicable	Complete form as instructed	

## **APPENDIX 1: ACRONYM LIST**

ACOS/R&D	Associate Chief of Staff for Research and Development
ACURO	Animal Care and Use Review Office
CSCDA	Convergent Science Consortium Development Award
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
FY	Fiscal Year
HRPO	Human Research Protection Office
IACUC	Institutional Animal Care and Use Committee
IRB	Institutional Review Board
LOI	Letter of Intent
M	Million
MB	Megabytes
MIPR	Military Interdepartmental Purchase Request
ORCID	Open Researcher and Contributor ID, Inc.
ORP	Office of Research Protections
PDF	Portable Document Format
PHS	Public Health Service
PI	Principal Investigator
PRCRP	Peer Reviewed Cancer Research Program
SAM	System for Award Management
SOW	Statement of Work
STEM	Science, Technology, Engineering, and/or Mathematics
URL	Uniform Resource Locator

UEI	Unique Entity Identifier
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