I. OVERVIEW OF THE FUNDING OPPORTUNITY

Program Announcement for the Department of Defense

Defense Health Program

Congressionally Directed Medical Research Programs

Peer Reviewed Medical Research Program

Lifestyle and Behavioral Health Interventions Research Award

Announcement Type: Initial

Funding Opportunity Number: HT942524PRMRPLBIRA

Assistance Listing Number: 12.420 Military Medical Research and Development

SUBMISSION AND REVIEW DATES AND TIMES

- **Pre-Application (Letter of Intent) Submission Deadline:** 5:00 p.m. Eastern time (ET), May 13, 2024
- **Application Submission Deadline:** 11:59 p.m. ET, June 6, 2024
- **End of Application Verification Period:** 5:00 p.m. ET, June 11, 2024
- **Peer Review:** August/September 2024
- **Programmatic Review:** December 2024

This program announcement must be read in conjunction with the General Application Instructions, version 900. The General Application Instructions document is available for downloading from the Grants.gov funding opportunity announcement by selecting the "Package" tab, clicking "Preview," and then selecting "Download Instructions."

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II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

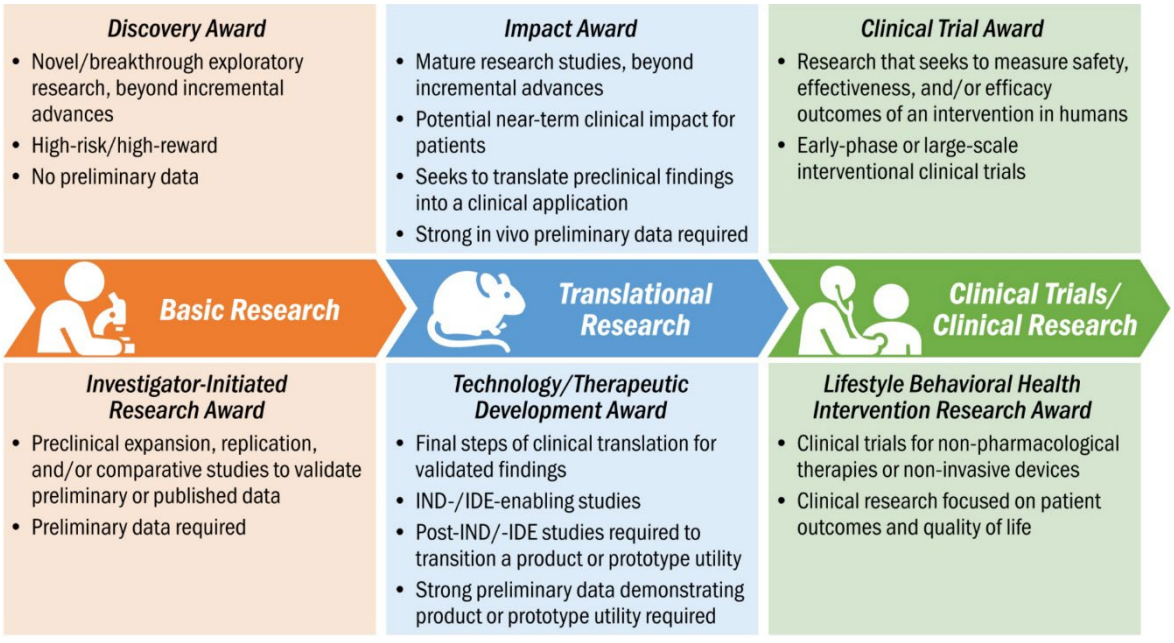
II.A. Program Description

The U.S. Army Medical Research Acquisition Activity (USAMRAA) is soliciting applications to the fiscal year 2024 (FY24) Peer Reviewed Medical Research Program (PRMRP) using delegated authority provided by United States Code, Title 10, Section 4001 (10 USC 4001). The Congressionally Directed Medical Research Programs (CDMRP) at the U.S. Army Medical Research and Development Command (USAMRDC) is the program management agent for this funding opportunity. Congress initiated the PRMRP in 1999 to support medical research projects of clear scientific merit and direct relevance to military health. Appropriations for the PRMRP from FY99 through FY23 totaled $3.82 billion (B). The FY24 appropriation is $370 million (M).

The vision of the PRMRP is to improve the health, care, and well-being of all military Service Members, Veterans, and their Families, and its mission is to encourage, identify, select, and manage medical research projects of clear scientific merit that lead to impactful advances in health care of Service Members, Veterans, and their Families. The PRMRP challenges the scientific and clinical communities to address the congressionally mandated FY24 PRMRP Topic Areas with original ideas that foster new directions along the entire spectrum of research and patient care.

II.A.1. FY24 PRMRP Research Development Pipeline

To address the congressionally mandated FY24 PRMRP Topic Areas in a bench-to-bedside fashion, the FY24 PRMRP award mechanisms are aligned to different phases of the research development pipeline illustrated below.



The **Basic Research** phase represents novel, exploratory research aimed at generating preliminary data and/or preclinical research that is ready for validation through expansion, replication, or comparative studies. Applicants seeking support for research aligning to the Basic Research phase may consider:

- FY24 PRMRP Discovery Award (HT942524PRMRPDA) for novel, high-risk, high-reward research projects with the potential to yield high-impact findings and new avenues of investigation

- FY24 PRMRP Investigator-Initiated Research Award (HT942524PRMRPIIRA) for preclinical research ready for validation

The **Translational Research** phase seeks to transition scientific outcomes toward diagnostic, treatment, and/or preventive strategies. Research projects are expected to have significant near-term impact on patients' lives. Examples of projects in the Translational Research phase include clinical translation of concepts previously validated through expansion, replication, or comparative studies and product/device development. Applicants seeking support for research aligning to the Translational Research phase may consider:

- FY24 PRMRP Impact Award (HT942524PRMRPIPA) for mature research products that have moved beyond the realm of basic laboratory research and demonstrate potential for near-term clinical impact

- FY24 PRMRP Technology/Therapeutic Development Award (HT942524PRMRPTTDA) for development of tangible products (drugs or biologics), knowledge-based products, and/or devices

The **Clinical Trials/Clinical Research** phase represents small- and large-scale confirmatory trials and/or applied clinical research that will revolutionize the clinical management of the diseases and conditions included in the congressionally mandated Topic Areas. Applicants seeking support for trials and studies aligned to the Clinical Trials/Clinical Research phase may consider:

- FY24 PRMRP Clinical Trial Award (HT942524PRMRPCTA) for projects focused on safety, effectiveness, and/or efficacy outcomes of pharmacological interventions, devices, and implants attached to the subject

- FY24 PRMRP Lifestyle and Behavioral Health Interventions Research Award (HT942524PRMRPLBIRA) for clinical trials and clinical research focused on effectiveness and/or outcomes of nonpharmacological interventions or noninvasive devices

NOTE: The scope of research proposed in applications in response to the FY24 PRMRP program announcements must align with the research phases outlined above. It is the responsibility of the applicant to select the award mechanism that aligns with the scope of the proposed research. The funding mechanism should be selected based on the research scope defined in the program announcement, and not on the amount of the budget. Applications

submitted under a mechanism that is not deemed appropriate for the scope of research proposed will not be funded.

II.A.2. FY24 PRMRP Topic Areas and Strategic Goals

To meet the intent of the funding opportunity, ***all applications for FY24 PRMRP funding must specifically address one of the FY24 PRMRP Topic Areas as directed by the U.S. Congress and have direct relevance to military health***. Additionally, the PRMRP implements a portfolio-driven approach by grouping related Topic Areas with Strategic Goals as a framework within which to address critical gaps in major research areas. ***All applications must address one of the FY24 PRMRP Strategic Goals as it relates to the portfolio-assigned FY24 PRMRP Topic Area.*** If the proposed research does not specifically address one FY24 PRMRP Topic Area and one FY24 PRMRP Strategic Goal, then the government reserves the right to administratively withdraw the application. The government reserves the right to reassign the application's Topic Area if submitted to an incorrect Topic Area. The FY24 PRMRP Topic Areas and Strategic Goals are listed in each PRMRP portfolio category below.

FY24 PRMRP Portfolio Categories with Associated FY24 PRMRP Topic Areas and FY24 PRMRP Strategic Goals.

AUTOIMMUNE DISORDERS AND IMMUNOLOGY

All applications under this portfolio must be aligned to Autoimmune Disorders and Immunology by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Celiac Disease
- Computational Biology for Precision Health
- Food Allergies
- Guillain-Barré Syndrome
- Inflammatory Bowel Disease
- Proteomics
- Scleroderma

STRATEGIC GOALS

Foundational Studies

- Identify triggers and/or risk factors impacting onset and progression of disease (e.g., environmental exposures, psychosocial stressors, climate change, lifestyle preferences, genetic risk factors, dietary practices, past medical history, sex and/or gender).
- Determine associations between the microbiome and gut-mediated inflammation.
- Develop preclinical models that recapitulate the phenotype of human disease.

Prevention

- Develop and test strategies to prevent the onset and/or progression of disease.

Diagnosis

- Develop innovative noninvasive methods (e.g., biomarkers, multi-omics approaches) for the diagnosis and continuous monitoring of inflammation, especially in minority communities.
- Develop tools to assess neurologic outcomes of the disease/condition.

Treatment

- Develop and test therapeutic and/or lifestyle interventions to reduce inflammation and inflammatory responses, improve or delay symptom onset, reduce the negative consequences of disease sequelae and/or promote tissue healing.
- Develop and test new treatments and/or refine existing treatment strategies to minimize toxicity and mitigate inflammatory, immune and/or allergic disease states.

Epidemiology

- Conduct patient-centered research on onset, exacerbation, outcomes, treatment preferences, and quality-of-life measures.
- Conduct population-based studies to identify risk factors that contribute to onset and/or progression of the disease/condition and its comorbidities.
- Conduct research to better understand and decrease disparities in rates of disease incidence and/or prevalence, rates of diagnosis, treatment regimens, and outcomes in women and minority communities.
- Conduct natural history/longitudinal studies to understand incidence, prevalence, and progression of the disease/condition.

CARDIOVASCULAR HEALTH

All applications under this portfolio must be aligned to Cardiovascular Health by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Computational Biology for Precision Health
- Congenital Heart Disease
- Proteomics
- Vascular Malformations

STRATEGIC GOALS

Prevention

- Develop and test strategies to prevent or reduce the impact of the disease/condition on the heart, brain, arteries, and additional target organs across an individual's life span.
- Develop strategies to understand and prevent disease onset based on sex, gender, ethnic and/or racial differences.

Diagnosis

- Develop and test strategies to enable detection before clinical symptoms are apparent.
- Develop and rigorously test novel technologies for accurate diagnosis, predicting clinical outcomes and comorbid conditions, and tracking disease progression, including analytical tools, noninvasive methods and/or screening tools.

Treatment

- Develop and evaluate novel therapeutics or advance treatment regimens, especially those that address sex, gender, ethnic and/or racial differences.

Epidemiology

- Identify risk factors that contribute to the disease/condition in civilian and/or military populations.
- Conduct population-based or outcomes-based research to identify sex, gender, ethnic and/or racial, psychosocial and/or quality-of-life long-term impacts.

INFECTIOUS DISEASES

All applications under this portfolio must be aligned to Infectious Diseases by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Computational Biology for Precision Health
- Congenital Cytomegalovirus
- Far-UVC Germicidal Light
- Hepatitis B
- Malaria
- Proteomics

STRATEGIC GOALS

Foundational Studies

- Elucidate long-term complications following infections, including comorbidities.

Prevention

- Develop or optimize vaccine strategies, vaccine platforms, or compounds (including active or passive immunoprophylaxis), to prevent disease onset or inhibit disease progression; research on agile platforms is encouraged.
- Develop strategies to eliminate/reduce maternal-fetal transmission.
- Develop strategies for rapid prediction of protective antigens/epitopes.

Diagnosis

- Identify testable correlates of protection induced by prophylactic treatment or natural infection.
- Develop pathogen-agnostic diagnostic tools/assays or improve existing next generation tools, that use non-invasive, patient-derived samples (e.g., urine, sweat, biometrics).

Treatment

- Expand upon current treatments or establish new disease-specific clinical networks for therapeutics drug testing for severe or chronic disease (does not include discovering or testing new chemical entities).
- Develop and test more effective and shorter treatment regimens, including those that address treatment resistance (does not include discovering or testing of new chemical entities).

Epidemiology

- Identify strategies for surveillance or develop modeling tools and/or biomarkers to predict outbreaks or epidemics.

INTERNAL MEDICINE

All applications under this portfolio must be aligned to Internal Medicine by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Accelerated Aging Processes Associated with Military Service
- Computational Biology for Precision Health
- Focal Segmental Glomerulosclerosis
- Interstitial Cystitis
- Lymphedema
- Nephrotic Syndrome
- Pancreatitis
- Polycystic Kidney Disease
- Proteomics

STRATEGIC GOALS

Foundational Studies

- Improve understanding of molecular underpinnings, progression, comorbidities and long-term complications of the disease/condition.
- Develop improved research tools to translate preclinical findings to more efficacious treatment regimens and enable new drug discovery.
- Conduct multi-organ research to better understand the effect of the disease/condition on the whole body.

Prevention

- Develop and test strategies to prevent the disease/condition.

Diagnosis

- Develop and test tools or technologies for early detection, accurate diagnosis, or tracking of disease progression, including analytical tools, noninvasive methods and/or screening tools.
- Develop tools to reduce time between presentation of symptoms and required specialized care for management of disease/condition.
- Conduct biomarker and genetic studies to better understand and differentiate subtypes, heterogeneity, and progression of disease/condition.

Treatment

- Develop and test novel treatments and/or improve upon existing treatments (including repurposing existing drugs), which may include lifestyle interventions (e.g., diet and physical activity) to improve psychosocial functioning and quality of life, especially those that account for sex, gender, ethnic and/or racial differences.
- Develop and test combination therapy and/or intervention treatment approaches to slow the progression of the disease/condition and/or address long-term pain management (includes drugs, lifestyle changes, devices, and surgical interventions).
- Advance the development of artificial organs, including xenobiology research.

Epidemiology

- Conduct population-based studies to identify risk factors (e.g., medication toxicity, genetic predisposition, infections, environmental exposures, sex and/or gender) that influence development, progression, and outcomes (including psychosocial functioning and quality of life).
- Develop surrogate endpoints to accelerate approval of new treatments.
- Conduct natural history studies to improve tracking of prevalence.
- Develop and test the efficacy of educational and health-tracking programs and platforms to increase awareness for prevention and/or contribute to shared decision making and treatment preferences.

NEUROSCIENCE

All applications under this portfolio must be aligned to Neuroscience by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Computational Biology for Precision Health
- Eating Disorders
- Maternal Mental Health
- Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome
- Neuroactive Steroids
- Peripheral Neuropathy
- Proteomics
- Suicide Prevention

STRATEGIC GOALS

Foundational Studies

- Identify mechanisms underlying the disease/condition including sex and/or gender, potential relationships to environmental or neurotoxic exposures, injury, stress, or infection.
- Integrate data using computational methods to improve understanding of and/or assess the treatment of the disease/condition.

Prevention

- Develop and test the efficacy of methods (e.g., screening, education programs, counseling) to prevent the disease/condition and/or comorbidities.

Diagnosis

- Improve and validate diagnostics for neurological health, psychological health and/or cognitive assessment, which may include developing and testing personalized clinical decision-making tools or developing objective diagnostic criteria.
- Develop and test strategies, such as predictive analytics, to provide early diagnosis and/or monitoring.
- Develop and test strategies to identify and prioritize at-risk individuals who would benefit from screening and/or diagnostic testing.

Treatment

- Develop and evaluate novel pharmacological or nonpharmacological treatments, strategies, or therapeutic targets, which may include repurposing of existing drugs.
- Develop and test targeted treatment strategies that address sex/gender differences for diseases/conditions that disproportionately affect women.

Epidemiology

- Conduct population-based studies to identify risk factors (e.g., genetic, behavioral, lifestyle, psychosocial, sex and/or gender) that contribute to disease/condition onset and progression.
- Population-based studies to understand how implementing treatment and preventative strategies within a community impacts patient outcomes.
- Identify barriers to treatment access and develop strategies to mitigate these barriers.
- Conduct population-based studies to identify prevalence, medical service usage, and/or quality of life for those affected by the disease/condition.

ORTHOPAEDIC MEDICINE

All applications under this portfolio must be aligned to Orthopaedic Medicine by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Accelerated Aging Processes Associated with Military Service
- Computational Biology for Precision Health
- Musculoskeletal Disorders Related to Acute and Chronic Bone Conditions and Injuries
- Proteomics

STRATEGIC GOALS

Foundational Studies

- Understand mechanisms underlying the pathology of associated musculoskeletal disorders including, but not limited to aging, pain, mechanobiology, gut microbiome, and cell senescence.
- Determine factors that lead to accelerated degeneration following joint injuries, including research focused on the entire joint rather than a specific tissue and studies investigating the role of aberrant mechanobiology or multi-omics studies.
- Elucidate the role of steroid hormones and/or biological sex in orthopaedic health.

Prevention

- Develop strategies for improved point-of-injury care to mitigate risk of secondary complications and to address joint preservation.

- Develop and test strategies to prevent bacterial and/or fungal infections that occur with severe fractures or trauma.
- Develop and test strategies to prevent orthopaedic-related conditions in women.

Diagnosis

- Develop and test novel strategies for early and precise diagnosis, including but not limited to research involving patient profiling, omics, and machine learning/artificial intelligence approaches.

Treatment

- Advance intra-articular treatments for joint injuries to address whole joint preservation, regeneration, or resurfacing, and to improve joint microenvironment.
- Develop and test strategies to increase quality of life or halt/slow disease progression (may include regenerative medicine approaches and/or biologics).
- Develop and test strategies for rehabilitation regimens for the musculoskeletal system and associated disorders to facilitate Service Members returning to duty.
- Develop and test treatment strategies for orthopaedic-related conditions in women.

Epidemiology

- Conduct patient-reported outcomes research to inform treatment guidelines and/or improve exercise recommendations to optimize joint longevity; research with a focus on large data sets is encouraged.

RARE DISEASES AND CONDITIONS

All applications under this portfolio must be aligned to Rare Diseases and Conditions by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Computational Biology for Precision Health
- Dystonia
- Ehlers-Danlos Syndrome
- Epidermolysis Bullosa
- Fibrous Dysplasia/McCune-Albright Syndrome
- Fragile X
- Frontotemporal Degeneration
- Hereditary Ataxia
- Hydrocephalus
- Mitochondrial Disease
- Myotonic Dystrophy
- Proteomics
- Rett Syndrome
- Sickle-Cell Disease
- Von Hippel-Lindau Syndrome

STRATEGIC GOALS

Foundational Studies

- Identify biological mechanisms underlying disease onset, disease progression, or phenotype/symptomatic heterogeneity, including studies to address sex, gender, ethnic and/or racial differences.
- Elucidate how biomarkers (including genotype) are linked to disease phenotype or subtype.
- Develop novel preclinical models that recapitulate the phenotype of human disease.

Diagnosis

- Identify and validate objective biomarkers to predict onset, response to therapy, disease complications and/or disease progression.
- Develop and validate improved diagnostic criteria and screening tools for early detection or to track disease progression.
- Determine the physiological impact related to diagnosis and/or timing of a diagnosis.

Treatment

- Develop and test pharmacological or nonpharmacological treatments, or improve upon existing treatments, especially those that will minimize side effects.
- Develop and test curative strategies to include tissue engineering, genetic approaches, or protein replacement.
- Develop and test interventions to improve neuropsychological outcomes and cognitive symptoms and other comorbidities as defined by those with lived experience.
- Develop and test strategies to support ongoing treatments during life transitions (i.e., pediatric to adult care).

Epidemiology

- Conduct population-based studies to identify risk (i.e., carrier status), lifestyle determinates of health or protective factors that influence onset, progression and/or outcomes.
- Conduct natural history/longitudinal studies to understand incidence, prevalence, and progression of the disease/condition and carrier and modifier gene status.
- Develop and validate research tools to collect, mine, and integrate real-world data (patient-reported data, longitudinal data, etc.) with electronic medical records to guide precision medicine approaches.
- Develop clinically relevant endpoints for clinical trials.

RESPIRATORY HEALTH

All applications under this portfolio must be aligned to Respiratory Health by addressing <u>one</u> Topic Area and <u>one</u> Strategic Goal listed below:

TOPIC AREAS

- Computational Biology for Precision Health
- Proteomics
- Pulmonary Fibrosis
- Respiratory Health

STRATEGIC GOALS

Foundational Studies

- Determine how airborne hazards cause respiratory injury/disease (i.e., climate change-related, toxin/toxicant or nanomaterial exposure).
- Improve understanding of how genetics and/or immune system activation lead to respiratory distress.

Prevention

- Prevent lung injury caused by trauma, transfusion, mechanical ventilation, infection, or hemorrhagic shock.
- Develop and test interventions to prevent lung diseases following exposure to environmental and/or occupational respiratory toxicants.
- Develop methods and devices to minimize the extent of population exposure to environmental pollutants.

Diagnosis

- Develop and validate physiological sensors to assess environmental and/or physiological levels of exposure to airborne hazards or toxins.
- Develop a fieldable toolset to monitor lung dysfunction/failure.
- Improve early detection for respiratory illnesses, including developing and validating wearable sensors for early detection of chronic pulmonary diseases.
- Identify biomarkers to diagnose and/or monitor progression of chronic respiratory diseases.

Treatment

- Develop and test novel treatments, including precision medicine approaches, to slow progression and/or promote lung repair.
- Develop improved fieldable systems to treat traumatic/acute lung injury in far forward settings (e.g., miniature and/or semi-automated ventilator or devices that will enable correct airway placement of oxygenation in austere settings).
- Develop and test minimally invasive or noninvasive methods of facilitating gas exchange when the lungs are compromised.

Epidemiology

- Improve understanding of difference in incidence, risk factors, outcomes, and disease progression in populations based on race, genetics, and/or age.

II.B. Award Information

The FY24 PRMRP Lifestyle and Behavioral Health Interventions Research Award (LBIRA) supports clinical research and/or clinical trials using a combination of scientific disciplines including behavioral health, psychology, psychometrics, biostatistics and epidemiology, surveillance, and public health. Applications are required to address and provide a solution to one of the congressionally directed FY24 PRMRP Topic Areas and FY24 PRMRP Strategic Goals.

The overall intent of the FY24 PRMRP LBIRA mechanism is to promote evidence-based and patient-centered approaches to improve health and/or disease-related outcomes and enhance the patient experience in defined populations. Research ideas may include, but are not limited to:

- Development and testing for efficacy of lifestyle interventions and symptom management approaches to minimize disease risk and maximize quality of life.

- Studies to investigate the impact of prevention, diagnostics, treatment, or health care delivery approaches on health outcomes.

- Studies to assess the relationship(s) between behavioral, cognitive, and/or social functioning in relation to disease or condition initiation, progression, detection, treatment, and rehabilitation.

- Studies to examine and improve quality of life or decision-making.

- Population-focused studies to identify behavioral and lifestyle predictors of disease and/or disease progression.

The FY24 PRMRP LBIRA mechanism is meant to support clinical research or clinical trials for nonpharmacological interventions or noninvasive devices. Studies involving clinical trials for pharmacological interventions, clinical trials for devices that are implants or attached to the subject, or studies involving animal use are not appropriate for the LBIRA mechanism. If animal studies are proposed, the application may be withdrawn.

***Applicants seeking funding for a clinical trial involving pharmacological interventions or devices should apply to the FY24 PRMRP Clinical Trial Award mechanism* (Funding Opportunity Number HT942524PRMRPCTA).**

Applicants seeking funding for basic or translational research should consider one of the other FY24 PRMRP program announcements being offered. For information about these award mechanisms, see Section II.A.1, FY24 PRMRP Research Development Pipeline.

Key aspects of the FY24 PRMRP LBIRA:

- **Impact:** The FY24 PRMRP LBIRA is intended to support impactful research that will transform patient outcomes within the context of the FY24 PRMRP Topic Areas and FY24 PRMRP Strategic Goals. Research should challenge paradigms with respect to potential impact on patient care or population health, minimizing disease risk, increasing patient quality of life, and improving clinical decision-making. Proposed projects should include clinical research and may include clinical trials. Impactful research will accelerate the movement of promising ideas into clinical applications, generate knowledge to improve clinical guidelines, or significantly advance behavioral, cognitive, and/or social functioning as related to the targeted patient population. The anticipated outcomes of the research should be expected to have a positive impact on the lives of the relevant patient population(s) in the short and/or long term.

- **Study Design:** Applications should clearly articulate the chosen design of the study. The rationale should support the chosen study design with statistical evaluation to back the design. Studies entailing retrospective or prospective recruitment should define the type of architecture of the study (e.g., descriptive, correlational, field experimental, meta-analyses). Studies may integrate case, control, cohort, or other population science study designs (including the use of biospecimens and data from established databases and ongoing clinical trials), provided the proposed sample is of sufficient size to generate findings with ample statistical power. Study populations should be clearly defined. Questionnaires should be described in sufficient detail to justify interpretation of potential results. ***Clinical trials testing pharmacological interventions or devices or research involving animal studies are not considered appropriate for the FY24 PRMRP LBIRA mechanism.***

- **Preliminary Data:** The FY24 PRMRP LBIRA will require preliminary data for all studies that propose the active (prospective) recruitment of human subjects for clinical trials. Studies not proposing active recruitment of human subjects are not required to present preliminary data, but they should be supported by sound reasoning and relevant literature.

- **Patient Advocate Participation:** Applications to the FY24 PRMRP LBIRA funding opportunity are required to include patient advocates. The research team must include at least one patient advocate who will be integral throughout the planning and implementation of the research project. The patient advocate will be a person living with, or a family member or caretaker of someone with, a disease or condition addressed in one of the congressionally directed FY24 PRMRP Topic Areas. As a lay representative, the patient advocate should be active in an advocacy organization. The patient advocate should be involved in the development of the research question, project design, oversight, and

evaluation, as well as other significant aspects of the proposed project. Interactions with other team members should be well integrated and ongoing, not limited to attending seminars and semi-annual meetings. The role of the patient advocate should be focused on providing objective input on the research and its potential impact for individuals with, or at risk for, a disease or condition addressed in one of the congressionally directed FY24 PRMRP Topic Areas.

- **Relevance to Military Health:** Relevance to the health care needs of military Service Members, Veterans, and their Families is a key feature of this award. Investigators are encouraged to consider the following characteristics as examples of how a project may demonstrate relevance to military health:

    - Explanation of how the project addresses an aspect of the target disease/condition/ technology that has direct relevance to the health of military Service Members, Veterans, and/or other Military Health System Beneficiaries.

    - Description of how the knowledge, information, products, or technologies gained from the proposed research could be implemented in a dual-use capacity to benefit the civilian population and also address a military need.

    - Use of military or Veteran populations, samples, or datasets in the proposed research, if appropriate.

    - Collaboration with Department of Defense (DOD) or Department of Veterans Affairs (VA) investigators or consultants. A list of websites that may be useful in identifying additional information about ongoing DOD and VA areas of research interest or potential opportunities for collaboration within the FY24 PRMRP Topic Areas can be found in Appendix 2.

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

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

A clinical trial is defined in the Code of Federal Regulations, Title 45, Part 46.102 (45 CFR 46.102) as a research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include a placebo or another control) to evaluate the effects of the interventions on biomedical or behavioral health-related outcomes.

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

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

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

(2) Epidemiologic and behavioral studies that do ***not*** seek to assess the safety, effectiveness, and/or efficacy outcomes of an intervention.

(3) Outcomes research and health services research that do not fit under the definition of clinical trial.

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

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

The anticipated direct costs budgeted for the entire period of performance for an FY24 PRMRP Lifestyle and Behavioral Health Interventions Research Award should not exceed **$3.0M**. Refer to Section II.D.5, Funding Restrictions, for detailed funding information.

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

The CDMRP expects to allot approximately $27.0M to fund approximately six FY24 PRMRP Lifestyle and Behavioral Health Interventions Research Award applications. Funding of applications received is contingent upon the availability of federal funds for this program, the number of applications received, the quality and merit of the applications as evaluated by peer and programmatic review, and the requirements of the government. Funds to be obligated on any award resulting from this funding opportunity will be available for use for a limited time period based on the fiscal year of the funds. It is anticipated that awards made from this FY24 funding opportunity will be funded with FY24 funds, which will expire for use on September 30, 2030.

II.C. Eligibility Information

II.C.1. Eligible Applicants

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

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

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

Awards are made to eligible ***organizations***, not to individuals.

Refer to the General Application Instructions, Appendix 1, for additional recipient qualification requirements.

II.C.1.b. Principal Investigator

Investigators at or above the level of Assistant Professor (or equivalent) may be named by the organization as the Principal Investigator (PI) on the application.

Industry titles may not be analogous to the faculty hierarchy in academia. For industry, investigators at or above an independent scientist level may be named by the company as the PI on the application.

Each investigator may be named on only one FY24 PRMRP LBIRA application as a PI.

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

II.C.2. Cost Sharing

Cost sharing/matching is not an eligibility requirement.

II.C.3. Other

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

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

II.D. Application and Submission Information

II.D.1. Location of Application Package

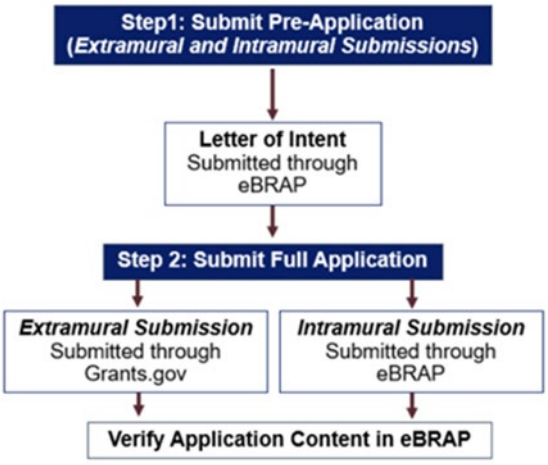
Submission is a two-step process requiring both a ***pre-application*** submitted via the Electronic Biomedical Research Application Portal (eBRAP.org) and a ***full application*** (eBRAP.org or Grants.gov). Depending on the type of submission (i.e., extramural vs. intramural), certain aspects of the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

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

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

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

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).



Extramural Submission: An application submitted by an extramural organization for an extramural or intramural PI working within an extramural or intramural organization. For example, a research foundation submitting an application for a DOD employee working within a DOD organization would be considered an extramural submission and should follow instructions

specific to extramural submissions.) Download application package components for HT942524PRMRPLBIRA from Grants.gov (https://grants.gov). Full applications from extramural organizations ***must*** be submitted through Grants.gov.

Intramural Submission: An application submitted by an intramural DOD organization for an investigator employed by that organization. Intramural DOD organizations may submit full applications to either eBRAP or Grants.gov. Download application package components for HT942524PRMRPLBIRA from the anticipated submission portal eBRAP (https://ebrap.org) or Grants.gov.

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

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

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

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

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

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

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

Regardless of submission type (i.e., extramural or intramural), all pre-application (LOI) components must be submitted by the PI through eBRAP.

During the pre-application process, eBRAP assigns each submission a unique log number. This unique log number is required during the full application submission process. The eBRAP log number, application title, and all information for the PI, Business Official(s), performing organization, and contracting organization must be consistent throughout the entire pre-application and full application submission process. Inconsistencies may delay application processing and limit or negate the ability to view, modify, and verify the application in eBRAP.

If any changes need to be made, the applicant should contact the eBRAP Help Desk at help@eBRAP.org or 301-682-5507 prior to the application submission deadline.

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

Application Includes:	**Select Option:**
Clinical research only (no clinical trial)	Lifestyle and Behavioral Health Interventions Research Award
Clinical trial	Lifestyle and Behavioral Health Interventions Research Award – Clinical Trial

Select the FY24 PRMRP Portfolio addressed by the proposed research.

Select the FY24 PRMRP Topic Area addressed by the proposed research.

Select the FY24 PRMRP Continuum of Care category addressed by the proposed research.

Select the FY24 PRMRP Strategic Goal addressed by the proposed research.

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

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

Letter of Intent (LOI) (one-page limit): Provide a brief description of the research to be conducted. Include the PRMRP Portfolio, FY24 PRMRP Topic Area, and FY24 PRMRP Strategic Goal 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. An invitation to submit a full application is NOT provided after LOI submission. Applicants are encouraged to develop pre-application and full application components concurrently and submit a full application AFTER successful submission of the pre-application.

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

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

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

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

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

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

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

(b) Attachments:

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

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

  Describe the proposed project in detail using the outline below.

  - **Background:** Describe how the proposed project addresses an FY24 PRMRP Topic Area. Additionally, describe how the proposed research project relates to an FY24 PRMRP Strategic Goal. Describe in detail the scientific rationale for the study. Provide a literature review and analysis. Describe the preliminary studies and/or preclinical data (if applicable) in support of the idea. Describe how the proposed research will make important scientific advances in the relevant field of research, patient care, population health, quality of life, or clinical decision-making. Articulate how the study will assess the relationship(s) between behavioral health and outcomes related to the disease or condition addressed. State the area of lifestyle or behavioral health science to be studied (e.g., basic behavioral, quality of life, decision-making and/or cognitive function, educational interventions, symptom management).

If a clinical trial is proposed, include a discussion of any current clinical use of the intervention under investigation, and/or details of its study in clinical trials for other indications (as applicable). Describe how the study would be expected to make an impact on the lives of relevant patient populations in the short term and or long term. If the proposed clinical trial was initiated using other funding prior to this application, explain the history and background of the clinical trial and declare the source of prior funding. Specifically identify the portions of the study that will be supported with funds from this award.

- **Objectives/Specific Aims/Hypotheses:** Provide a description of the purpose and objectives of the study with detailed specific aims and/or study questions/hypotheses.

- **Research Strategy and Feasibility:** Describe the study design, methods, and analyses in sufficient detail for evaluation including availability of resources (if applicable). Studies entailing retrospective or prospective recruitment should define the type of study (e.g., descriptive, correlational, field experimental, meta-analyses). Study populations should be defined. Address potential problem areas and potential pitfalls, and present alternative methods and approaches. If using psychometric measures, describe their reliability and validity. If use of a biorepository, patient medical files, or meta-analysis is proposed, describe the data to be collected and the process or methodology to collect the samples (i.e., for biorepositories – the standardization of procedures for collection). 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. Studies not including a clinical trial or active recruitment of human subjects should demonstrate the research strategy, feasibility, and how the study relates to the human experience with the disease or condition addressed.

  If the proposed research involves access to active-duty military and/or VA patient populations and/or DOD or VA resources or databases, describe the access at the time of submission and include a plan for maintaining access as needed throughout the proposed research. Refer to the General Application Instructions, Appendix 4, for additional considerations.

- **Statistical Plan and Data Analysis:** Describe the statistical model and data analysis plan with respect to the study objectives. If applicable, specify the approximate number of human subjects to be enrolled. If multiple study sites are involved, state the approximate number to be enrolled at each site. Include a complete power analysis to demonstrate that the sample size is appropriate to meet the objectives of the study and all proposed correlative studies. If a subpopulation of a recruited sample population will be used for analysis, complete a statistical analysis to ensure appropriate power can be achieved within the subpopulation study. Ensure sufficient information is provided to allow thorough evaluation of all statistical calculations during review of the application.

If applicable, 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. The Supporting Documentation attachment should not include additional information such as figures, tables, graphs, photographs, diagrams, chemical structures, or drawings. These items should be included in the Project Narrative.

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

  - **References Cited:** List the references cited (including URLs, if available) in the Project Narrative using a standard reference format.

  - **List of Abbreviations, Acronyms, and Symbols:** Provide a list of abbreviations, acronyms, and symbols.

  - **Facilities, Existing Equipment, and Other Resources:** Describe the facilities and equipment available for performance of the proposed project and any additional facilities or equipment proposed for acquisition at no cost to the award. Indicate whether government-furnished facilities or equipment are proposed for use. If so, reference should be made to the original or present government award under which the facilities or equipment items are now accountable. There is no form for this information.

  - **Publications and/or Patents:** Include a list of relevant publication URLs and/or patent abstracts. If articles are not publicly available, then copies of up to five published manuscripts may be included in Attachment 2. Extra items will not be reviewed.

  - **Letters of Organizational Support:** Provide a letter (or letters, if applicable) signed by the Department Chair or appropriate organization official, confirming the laboratory space, equipment, and other resources available for the project. Letters of support not requested in the program announcement, such as those from members of Congress, do not impact application review or funding decisions.

  - **Letters of Collaboration *(if applicable)*:** Provide a signed letter from each collaborating individual and/or organization demonstrating that the PI has the support and resources necessary for the proposed work. If an investigator at an intramural DOD organization is named as a collaborator on a full application submitted through an extramural organization, the application must include a letter from the collaborator's Commander or Commanding Officer at the intramural DOD organization authorizing the collaborator's involvement.

- **Intellectual Property:** Information can be found in the 2 CFR 200.315, "Intangible Property."

- **DOD Data Management Plan (two-page limit is recommended):** Describe the data management plan in accordance with Section 3.c, Enclosure 3, DoD Instructions 3200.12. ***Do not duplicate the Data and Research Resources Sharing Plan.*** Refer to General Application Instructions, Section IV.B, Attachments Form, Attachment: Supporting Documentation, for detailed information regarding Data Management Plan content.

- **Inclusion Enrollment Plan:** Provide an anticipated enrollment table(s) for the inclusion of women and minorities using the Public Health Service (PHS) Inclusion Enrollment Report, a three-page fillable PDF form that can be downloaded from eBRAP at https://ebrap.org/eBRAP/public/Program.htm. The enrollment table(s) should be appropriate to the objectives of the study with the proposed enrollment distributed on the basis of sex/gender, race, and ethnicity. Studies utilizing human biospecimens or datasets that cannot be linked to a specific individual, gender, ethnicity, or race (typically classified as exempt from Institutional Review Board [IRB] review) are exempt from this requirement.

- **Use of DOD Resources *(if applicable)*:** Provide a letter of support signed by the lowest-ranking person with approval authority confirming access to active-duty military populations and/or DOD resources or databases.

- **Use of VA Resources *(if applicable)*:** Provide a letter of support signed by the VA Facility Director(s) or individual designated by the VA Facility Director(s), such as the Associate Chief of Staff for Research and Development (ACOS/R&D) or Clinical Service Chief, confirming access to VA patients, resources, and/or VA research space. If the VA-affiliated non-profit corporation is not identified as the applicant organization for administering the funds, include a letter from the VA ACOS/R&D confirming this arrangement and identifying the institution that will administer the funds associated with the proposed research.

- **Attachment 3: Technical and Lay Abstracts (two-page limit): Upload as "Abs.pdf".** The technical abstract is used by all reviewers. ***Abstracts of all funded research projects will be posted publicly.*** Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

  Technical Abstract (one-page limit): Technical abstracts should be written using the outline below. Clarity and completeness within the space limits are highly important as programmatic reviewers typically do not have access to the full application and rely on the technical abstract for appropriate description of the project.

  - **Background:** Present the ideas and rationale behind the proposed research project.

- **Relevance to Topic Area:** State the relevance of the project to one of the FY24 PRMRP Topic Areas. Additionally, describe how the proposed research project addresses one of the FY24 PRMRP Strategic Goals.

- **Hypothesis/Objective(s):** State the hypothesis to be tested and/or objective(s) to be reached.

- **Specific Aims:** State the specific aims of the study.

- **Study Design:** Briefly describe the study design, including appropriate controls.

- **Impact:** Briefly describe how the proposed project will have an impact on research and patient care in the specified disease(s)/condition(s).

- **Relevance to Military Health:** Describe the study's relevance to the health care needs of military Service Members, Veterans, and/or their Families.

Lay Abstract (one-page limit): Lay abstracts should address the points outlined below ***in a manner that will be readily understood by readers without a background in science or medicine***. Avoid overuse use of scientific jargon, acronyms, and abbreviations. Lay abstracts should be labeled for easy identification and differentiation from the technical abstract.

- State the FY24 PRMRP Topic Area addressed by the proposed research project. Additionally, describe how the proposed research project addresses one of the FY24 PRMRP Strategic Goals.

- Summarize the objectives and rationale for the proposed research.

- What population will the research help, and how will it help them?

- What are the potential applications, benefits, and risks of the anticipated outcomes?

- What are the likely contributions of the proposed research project to advancing research, patient care, and/or quality of life?

- **Attachment 4: Statement of Work (SOW) (three-page limit): Upload as "SOW.pdf".** Refer to the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm) for the suggested SOW format and recommended strategies for assembling the SOW.

  For the FY24 PRMRP LBIRA, refer to the "Example: Assembling a Clinical Research and/or Clinical Trial Statement of Work" for guidance on preparing the SOW. Use the "Suggested SOW Format" to develop the SOW for the proposed research. Submit as a PDF.

- **Attachment 5: Impact and Relevance to Military Health Statement (three-page limit): Upload as "Impact.pdf".**

  - Describe how the proposed study will address an FY24 PRMRP Topic Area and an FY24 PRMRP Strategic Goal. Identify the volunteer population(s) that will participate in the proposed lifestyle or behavioral intervention, describe how they represent the target population that would benefit from the intervention, and describe the potential impact and anticipated outcomes of the proposed study on the lives and health of the target population with regard to the FY24 PRMRP Topic Area addressed.

  - Describe how the proposed research project will make important scientific advances in the relevant field of research, patient care, population health, quality of life, or clinical decision-making.

  - ***Describe the short-term impact:*** Detail the anticipated outcomes that will be directly attributed to the results of the proposed study and how they will provide/improve short-term benefits for individuals.

  - ***Describe the long-term impact:*** Explain the long-range vision for implementation of the intervention in the clinic or field, and describe the anticipated long-term benefits for the targeted population, including impacts on patient care and/or quality of life.

  - Describe any relevant controversies or treatment issues that will be addressed by the proposed study.

  - Describe any potential issues that might limit the impact of the proposed study.

  - Describe how the lifestyle or behavioral intervention compares with currently available interventions and/or standards of care.

  - Describe how the proposed study is responsive to the health care needs of military Service Members, Veterans, and/or their Families. Provide information about the incidence and/or prevalence of the disease or condition in the general population as well as in military Service Members, Veterans, and/or their Families.

  - If active-duty military, military Families, and/or Veteran population(s) or datasets will be used in the proposed research project, describe the population(s)/dataset(s) and the appropriateness of the population(s)/dataset(s) for the proposed study. If a non-military population will be used for the proposed research project, explain how the population simulates the targeted population (i.e., military Service Members, Veterans, and/or their Families).

  - If applicable, show how the proposed research project aligns with DOD and/or VA areas of research interests. Provide a description of how the knowledge, information, products, or technologies gained from the research could be implemented in a dual-use capacity to benefit the civilian population and address a military need, as appropriate.

- **Attachment 6: Clinical Strategy Statement, *if applicable* (no page limit): Upload as "Clinical.pdf". If funds for a clinical trial are requested, this attachment is required.**

  - Describe the rationale for the proposed clinical trial. Provide a description of the intervention and the endpoints to be measured. Describe the type of clinical trial to be performed (e.g., prospective, randomized, controlled) and outline the proposed methodology in sufficient detail to show a clear course of action. Describe potential challenges and alternative strategies where appropriate. Provide detailed plans for initiating the clinical study within the first year of the period of performance.

  - Define the study population and indicate the means of access to the study population, recruitment plans, and inclusion/exclusion criteria, including a justification for the plans. Describe potential challenges and alternative strategies where appropriate.

  - Describe how the clinical trial will inform correlative clinical research, if applicable.

  - If the proposed clinical trial was initiated using other funding prior to this application, explain the history and background of the clinical trial and declare the source of prior funding. Specifically, identify the portions of the study that would be supported with funds from this award.

  - **Statistical Plan and Data Analysis:** Describe the statistical model and data analysis plan with respect to the study objectives. Specify the approximate number of human subjects to be enrolled. Include a power analysis to demonstrate that the sample size is appropriate to meet the objectives of the study and all proposed correlative studies. If a subpopulation of a recruited sample population will be used for analysis, complete a statistical analysis to ensure appropriate power can be achieved within the subpopulation study. Ensure sufficient information is provided to allow thorough evaluation of all statistical calculations during review of the application.

  - **Regulatory Considerations *(if applicable)*:** For investigator-sponsored regulatory exemptions (e.g., Investigational New Drug [IND], Investigational Device Exemption [IDE]) provide evidence of institutional support. Provide evidence that the clinical trial does not require an IND/IDE. If the clinical trial will be conducted at international sites, provide equivalent information relevant to the regulatory requirements of the host country(ies).

    If an IND/IDE is required for the proposed intervention, applicants are encouraged to consider the PRMRP Clinical Trial Award mechanism (*Funding Opportunity Number HT942524PRMRPCTA*). For information about this award mechanism, see Section II.A.1, FY24 PRMRP Research Development Pipeline.

- **Attachment 7: Human Subject Recruitment and Safety Procedures (no page limit): Upload as "HumSubProc.pdf".** The Human Subject Recruitment and Safety Procedures attachment should include the components listed below.

  - **Study Population:** Describe the target population (to whom the study findings will be generalized) and the nature, approximate number, and pertinent demographic characteristics of the accessible population at the study site(s) (population from whom the sample will be recruited/drawn). Provide a table of anticipated enrollment counts at each study site. ***Demonstrate that the research team has access to the proposed study population at each site and describe the efforts that will be made to achieve accrual goals.*** Provide justification related to the scientific goals of the proposed study for limiting inclusion of any group by age, race, ethnicity, or sex/gender. ***For clinical trials proposing inclusion of military populations, refer to the General Application Instructions, Appendix 4, for more information.***

  - **Inclusion/Exclusion Criteria:** List the inclusion and exclusion criteria for the proposed clinical trial. Provide detailed justification for exclusions.

  - **Women and Minorities in the Study:** Consistent with the Belmont Report, "Ethical Principles and Guidelines for the Protection of Human Subjects," and congressional legislation, special attention is given to inclusion of women and/or minorities in studies funded or supported by the USAMRDC. This policy is intended to promote equity both in assuming the burdens and in receiving the benefits of human subjects research. Describe the strategy for the inclusion of women and minorities in the clinical trial appropriate to the objectives of the study, including a description of the composition of the proposed study population in terms of sex/gender, race, and ethnicity, and an accompanying rationale for the selection of subjects. Studies utilizing human biospecimens or datasets that cannot be linked to a specific individual, gender, ethnicity, or race (typically classified as exempt from IRB review) are exempt from this requirement.

  - **Description of the Recruitment Process:** Explain methods for identification of potential human subjects (e.g., medical record review, obtaining sampling lists, health care provider identification). Describe the recruitment process in detail. Address who will identify potential human subjects, who will recruit them, and what methods will be used to recruit them. Address the availability of human subjects for the clinical trial for each enrollment site. If human subjects will be compensated for participation in the study, include a detailed description of and justification for the compensation plan. Describe the recruitment and advertisement materials. Discuss past efforts in recruiting human subjects from the target population for previous clinical trials *(if applicable)*. Address any potential barriers to accrual and plans for addressing unanticipated delays, including a mitigation plan for slow or low enrollment or poor retention. Identify ongoing clinical trials that may compete for the same patient population and how they may impact enrollment progress.

- **Description of the Informed Consent Process:** Specifically describe the plan for obtaining informed consent from human subjects.

  - ***For the proposed study, provide a draft, in English, of the Informed Consent Form.***

  - Identify who is responsible for explaining the study, answering questions, and obtaining informed consent. Include a plan for ensuring that human subjects' questions will be addressed during the consent process and throughout the trial.

  - Include information regarding the timing and location of the consent process.

  - Address issues relevant to the mental capacity of the potential human subject (e.g., altered capacity due to administration of any mind-altering substances such as tranquilizers, conscious sedation or anesthesia, brain injury, stress/life situations, or human subject age), if applicable.

  - Address how privacy and time for decision-making will be provided and whether the potential human subject will be allowed to discuss the study with anyone before making a decision.

  - Consider the need for obtaining ongoing consent or for re-assessing capacity over the course of a long-term study and describe any relevant procedures to assure continued consent.

  - Describe the plan for the consent of the individual's Legally Authorized Representative (LAR) to be obtained prior to the human subject's participation in the study. State law defines who may act as the LAR. The local IRB of record should be consulted for guidance regarding who can serve as LAR for research at the study site. ***Note:*** In compliance with 10 USC 980, the application must describe a clear intent to benefit for human subjects who cannot give their own consent to participate in the proposed clinical trial.

  - ***Assent:*** If minors or other populations that cannot provide informed consent are included in the proposed clinical trial, a plan to obtain assent (agreement) from those with capacity to provide it, or a justification for a waiver of assent, should be provided. PIs should consult with their local IRB to identify the conditions necessary for obtaining assent.

- **Screening Procedures:** List and describe any evaluations (e.g., laboratory procedures, history, or physical examination) that are required to determine eligibility/suitability for study participation and the diagnostic criteria for entry.

- **Risks/Benefits Assessment:**

  - **Foreseeable risks:** Clearly identify all study risks, including potential safety concerns and adverse events. If applicable, any potential risk to the study personnel should be identified.

- **Risk management and emergency response:** Appropriate to the study's level of risk, describe how safety monitoring and reporting to the IRB and Regulatory Agency (if applicable) will be managed and conducted. Describe all safety measures to minimize and/or eliminate risks to human subjects and study personnel or to manage unpreventable risks. Include safeguards and planned responses such as dose reduction or stopping criteria based on toxicity grading scales or other predetermined alert values. Discuss the overall plan for provision of emergency care or treatment for an adverse event for study-related injuries, including who will be responsible for the cost of such care.

- **Potential benefits:** Describe known and potential benefits of the study to the human subjects who will participate in the study. Articulate the importance of the knowledge to be gained as a result of the proposed research. Discuss why the potential risks to human subjects are reasonable in relation to the anticipated benefits to the human subjects and others that may be expected to result.

- **Attachment 8: Data Management and Sharing (no page limit): Upload as "Data_Manage.pdf".** The Data Management attachment should include the components listed below.

  - **Data Management:** Describe the data to be gathered and all methods used for collection, including the following:

    - **Data:** The types of data, software, or other materials to be produced.

    - **Acquisition and processing:** How the data will be acquired, including the time and location of data acquisition, if scientifically pertinent. If use of existing data resources is proposed, describe the origin of the dataset. Provide an account of the standards to be used for data and metadata format and content. Explain how the data will be processed.

    - **Identifiers:** Describe the unique identifiers or specific code system to be used to identify human subjects, if applicable.

    - **Confidentiality**

      - Explain measures taken to protect the privacy of human subjects and maintain confidentiality of study data. Strategies to protect the privacy and confidentiality of study records, particularly those containing identifying information, should be addressed.

      - Address who will have access to study records, data, and specimens, including an acknowledgment that representatives of the DOD are eligible to review study records.

      - Address requirements for reporting sensitive information to state or local authorities.

- **Data capture, verification, and disposition:** Describe how data will be captured and verified, including the quality assurance and quality control measures taken during collection, analysis, and processing. Describe where data (both electronic and hard copy) will be stored; who will keep the data; how the data will be stored, if applicable; the file formats and the naming conventions that will be used; the process for locking the database at study completion; and the length of time that data will be stored, along with a justification for the time frame of preservation, which may include considerations related to the balance between the relative value of data preservation and other factors such as the associated cost and administrative burden of data storage. Describe the proposed database, how it will be developed and validated, and its capability to safeguard and maintain the integrity of the data. Describe the database lock process. For studies requiring Regulatory Agency oversight, compliance with 21 CFR 11 and appropriate data standards (such as those established by the Clinical Data Interchange Standards Consortium) is required.

    - **Data reporting:** Describe how data will be reported and how it will be assured that the documentation will support a regulatory filing with a Regulatory Agency, if applicable.

- **Data and Research Resources Sharing Plan:** Describe the type of data or research resources to be made publicly available as a result of the proposed work. Describe how data and resources generated during the performance of the project will be shared with the research community. Include the name of the repository(ies) where scientific data and resources arising from the project will be archived, if applicable. If a public repository will not be used for data or resource sharing, provide justification. Provide a milestone plan for data/results dissemination including when data and resources will be made available to other users, including dissemination activities with a particular focus on feeding back the data to affected communities and/or research participants. In cases where the human subject could possibly benefit medically or otherwise from the information, explain whether the results of screening and/or study participation will be shared with human subjects or their primary care provider, including results from any screening or diagnostic tests performed as part of the study. In cases of national security or controlled unclassified information concerns, include a statement that the data cannot be made available to the public (e.g., "This data cannot be cleared for public release in accordance with the requirements in DoD Directive 5230.09."). Refer to CDMRP's Policy on Data & Resources Sharing located on the eBRAP "Funding Opportunities & Forms" web page https://ebrap.org/eBRAP/public/Program.htm for more information about CDMRP's expectations for making data and research resources publicly available.

- **Laboratory Evaluations**

    - **Specimens to be collected, schedule, and amount:** All specimens that will be collected for study purposes must be clearly stated. The collection schedule and amount of material collected must also be clearly described.

- **Evaluations to be made:** Describe all evaluations that will be made for study purposes. Explain how the results of laboratory evaluations will be used to meet the objectives of the study (or to monitor safety of human subjects).

- **Storage:** Describe specimen storage, including location of storage, how long specimens will be stored, any special conditions required, labeling, and specimen disposition. Outline the plan to store specimens for future use, including considerations for informed consent and providing human subjects with an opportunity to decline participation in the study.

- **Labs performing evaluations and special precautions:** Identify the laboratory performing each evaluation, the applicable quality standard, and any special precautions that should be taken in handling the samples. Special precautions that should be taken by the human subject before, during, or after the laboratory procedure should be clearly defined. If transport of samples is required, describe provisions for ensuring proper storage during transport.

- **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 one patient advocate and their relationship with one of the FY24 PRMRP Topic Areas. Describe the integral role that the patient advocate will play in the planning, design, implementation, and evaluation of the research project. Describe how the patient advocate's knowledge of current health issues in one of the FY24 PRMRP Topic Areas and how their background will contribute to the research project.

- **Attachment 10: Study Personnel and Organization (no page limit): Start each document on a new page. Combine into one document and upload as "Personnel.pdf".** The Study Personnel and Organization attachment should include the components listed below.

  - **Organizational Chart:** Provide an organizational chart that identifies key members of the study team and provides an outline of the governing structure for multi-institutional studies. Identify collaborating organizations, centers, and/or departments and name each person's position on the project. Include any separate laboratory or testing centers. Identify the data and clinical coordinating center(s) and note any involvement from Contract Research Organizations, as appropriate. Identify and provide justification for the inclusion of international sites, as appropriate. If applicable, identify the Regulatory Agency sponsor and any external consultants or other experts who will assist with Regulatory Agency sponsor applications. While there is no specified format for this information, a table(s) or diagram is recommended. ***Note:*** This item may be made available for programmatic review.

  - **Study Personnel Description:** Briefly describe the composition of the study team, including roles of the individuals listed in the organizational chart on the project. Study coordinator(s) should be included. Describe how the levels of effort for each individual are appropriate to successfully support the proposed research. Describe

relevant background and qualifications that demonstrate appropriate expertise to accomplish the proposed work, including previous interactions with the relevant Regulatory Agency, if applicable.

- **Study Management Plan:** Provide a plan for ensuring the standardization of procedures among staff and across sites (if applicable). If the proposed study involves more than one institution, clearly describe the multi-institutional structure governing the research protocol(s) across all participating institutions. Provide a regulatory submission plan for the master protocol and master consent form by the lead institution. If the research involves more than one institution, a single IRB is required for all institutions located in the United States. If applicable, describe how communication and data transfer between/among the collaborating institutions will occur, as well as how data, specimens, and/or imaging products obtained during the study will be handled and shared.

- **Attachment 11: Questionnaires and Other Research Data Collection Instruments *(if applicable*; no page limit): Upload as "Data_Collection.pdf".** The Questionnaires and Other Research Data Collection Instruments attachment should include a copy of the most recent version of questionnaires, data collection forms, rating scales, interview guides, or other instruments. For each instrument, describe how the information collected is related to the objectives of the study. Describe how and when the instrument(s) will be administered. Describe how the instrument(s) will be adapted to the subject population, if applicable.

- **Attachment 12: Post-Award Transition Plan (three-page limit): Upload as "Transition.pdf".** Describe/discuss the methods and strategies proposed to move the intervention to the next phase of development (clinical trials, commercialization, and/or delivery to the civilian or military market) after successful completion of the award. Applicants are encouraged to work with their organization's Technology Transfer Office (or equivalent) to develop the transition plan. PIs are encouraged to explore developing relationships with industry and/or other funding agencies to facilitate moving the product into the next phase of development. The post-award transition plan should include the components listed below.

  - Details of the funding strategy to transition the intervention to the next level of development and/or commercialization (e.g., specific industry partners, specific funding opportunities to be applied for). Include a description of collaborations and other resources that will be used to provide continuity of development.

  - For knowledge products, a description of collaborations and other resources that will be used to provide continuity of development, including proposed development or modification of clinical practice guidelines and recommendations, provider training materials, patient brochures, and other clinical support tools, scientific journal publications, models, simulations, and applications. (A "knowledge product" is a non-materiel product that addresses an identified need, topic area, or capability gap; is based on current evidence and research; aims to transition into medical practice, training, or tools or to support materiel solutions [systems to develop, acquire,

provide, and sustain medical solutions and capabilities]; and educates or impacts behavior throughout the continuum of care, including primary prevention of negative outcomes.)

- A brief schedule and milestones for transitioning the intervention to the next level of development through a clinically meaningful outcome (e.g., next-phase clinical trials, commercialization, delivery to the military or civilian market, incorporation into clinical practice, and/or approval by a Regulatory Agency).
- Ownership rights/access to the intellectual property necessary for the development and/or commercialization of products or technologies supported with this award.
- Discussion of any potential impact of intellectual property issues on product development and subsequent government access supported by this program announcement. and the government's ability to access such products or technologies in the future.
- A risk analysis for implementation of findings generated from the proposed research.

- **Attachment 13: Prior Outcomes Statement (*if applicable*; one-page limit): Upload as "Outcomes.pdf".** If applicable, list all of the PI's prior or in-progress CDMRP/ PRMRP research projects/awards including resulting publications, abstracts, patents, or other tangible outcomes. Only research and outcomes directly relevant to this application should be listed. **Attachment 13 will be available for programmatic review only.**

- **Attachment 14: Representations *(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 8, Section B, Representations.

- **Attachment 15: Suggested Intragovernmental/Intramural Budget Form *(if applicable)*: Upload as "IGBudget.pdf".** If an intramural DOD organization will be a collaborator in performance of the project, complete a separate budget using the "Suggested Intragovernmental/Intramural Budget Form", available for download on the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm). The budget should cover the entire period of performance for each intramural DOD site and include a budget justification as instructed. The ***total*** costs per year for each subaward (direct and indirect costs) should be included on the Grants.gov Research & Related Budget Form under subaward costs. Refer to the General Application Instructions, Section V.A.(e), for additional information and considerations.

(c) Research & Related Personal Data: For extramural submissions, refer to the General Application Instructions, Section IV.B.(c), and for intramural submissions, refer to the General Application Instructions, Section V.A.(c), for detailed instructions.

(d) Research & Related Senior/Key Person Profile (Expanded): For extramural submissions, refer to the General Application Instructions, Section IV.B.(d), and for intramural submissions, refer to the General Application Instructions, Section V.A.(d), for detailed instructions.

- **PI Biographical Sketch (five-page limit):** Upload as "Biosketch_LastName.pdf".
- **PI Previous/Current/Pending Support (no page limit):** Upload as "Support_LastName.pdf".
- **Key Personnel Biographical Sketches (five-page limit each):** Upload as "Biosketch_LastName.pdf".
- **Key Personnel Previous/Current/Pending Support (no page limit):** Upload as "Support_LastName.pdf".

(e) Research & Related Budget: For extramural submissions, refer to the General Application Instructions, Section IV.B.(e), and for intramural submissions, refer to the General Application Instructions, Section V.A.(e), for detailed instructions.

- **Budget Justification (no page limit):** For extramural submissions, refer to the General Application Instructions, Section IV.B.(e), Section L, for instructions. For intramural submissions, refer to General Application Instructions, Section V.A.(e), Budget Justification Instructions.

(f) Project/Performance Site Location(s) Form: For extramural submissions, refer to the General Application Instructions, Section IV.B.(f), and for intramural submissions, refer to the General Application Instructions, Section V.A.(f), for detailed instructions.

(g) Research & Related Subaward Budget Attachment(s) Form (*if applicable, Extramural Submissions Only*): Refer to the General Application Instructions, Section IV.B.(g), for detailed instructions.

- **Extramural Subaward:** Complete the Research & Related Subaward Budget Form and upload through Grants.gov.
- **Intramural DOD Subaward:** Complete a separate "Suggested Intragovernmental/Intramural Budget Form" for each intramural DOD subaward and upload as a single document titled **IGBudget.pdf** to Grants.gov as Attachment 15.

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

Independent of submission type, once the full application is submitted it is transmitted to and processed in eBRAP. At this stage, the PI and organizational representatives will receive an email from eBRAP instructing them to log into eBRAP to review, modify, and verify the full application submission. Verification is strongly recommended but not required. eBRAP will validate full application files against the specific program announcement requirements, and discrepancies will be noted in the "Full Application Files" tab in eBRAP. However, eBRAP

does not confirm the accuracy of file content. It is the applicant's responsibility to review all application components and ensure proper ordering as specified in the program announcement. ***The Project Narrative and Research & Related Budget Form cannot be changed after the application submission deadline. If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated full application package must be submitted prior to the full application submission deadline.*** Other application components, including subaward budget(s) and subaward budget justification(s), may be changed until the end of the application verification period. The full application cannot be modified once the application verification period ends.

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

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

II.D.4. Submission Dates and Times

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

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

II.D.5. Funding Restrictions

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

The application's direct costs budgeted for the entire period of performance should not exceed **$3.0M**. If indirect cost rates have been negotiated, indirect costs are to be budgeted in accordance with the organization's negotiated rate. Collaborating organizations should budget associated indirect costs in accordance with each organization's negotiated rate.

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

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

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

- Travel in support of multidisciplinary collaborations.
- Travel costs for up to two investigators to travel to one scientific/technical meeting per year. The intent of travel to scientific/technical meetings should be to disseminate project results from the FY24 PRMRP LBIRA.

Must not be requested for:

- Costs for travel to scientific/technical meeting(s) beyond the limits stated above.
- Tuition

II.D.6. Other Submission Requirements

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

II.E. Application Review Information

II.E.1. Criteria

II.E.1.a. Peer Review

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

Scored review criteria for clinical research applications that <u>do not</u> include a proposed clinical trial:

- **Impact**
    - To what extent the project impacts a critical problem or question in the PI-selected FY24 PRMRP Topic Area.
    - To what extent the proposed research project addresses the PI-selected FY24 PRMRP Strategic Goal.
    - Whether the proposed research project will make important scientific advances in the relevant field of research, patient care, population health, quality of life, or clinical decision-making.
    - To what degree the proposed project could make a significant impact on the lives of relevant patient population(s) in the short term and/or long term.
    - To what extent the proposed research will contribute to the implementation of an intervention in the clinic or field and provide benefits for the targeted population, including impacts on patient care and/or quality of life.
- **Research Strategy and Feasibility**
    - How well the scientific rationale supports the project and its feasibility, as demonstrated by a critical review and analysis of the literature, supporting data, and logical reasoning.
    - How well the hypotheses, experimental design, and methods have been developed and how well they support completion of the aims.

- To what extent the data will be collected and analyzed in a manner consistent with the study aims.
- To what extent the power analysis demonstrates that the sample size is appropriate to test the hypothesis and allow a meaningful outcome.
- If applicable, the degree to which the plan to study patient populations is appropriate and feasible and whether the application provides evidence of availability of and access to the necessary study populations and/or resources.
- If applicable, whether the strategy for the inclusion of women and minorities and distribution of proposed enrollment are appropriate for the proposed research.
- How well potential problems are identified and alternative methods or approaches are addressed.
- How well the study population or dataset is described and whether it is appropriate to address the study objectives.
- How well the study (or studies) is designed to achieve reproducible and rigorous results, including controls, sample size estimation, blinding, randomization, and data handling.
- Whether the research can be completed within the proposed period of performance.

- **Transition Plan**
  - Whether the identified next level of development and/or commercialization is realistic.
  - Whether the follow-on funding strategy described to bring the findings from this award to the next level of development is reasonable and achievable (e.g., specific industry partners, specific funding opportunities to be applied for).
  - For knowledge products, whether the proposed collaborations and other resources for providing continuity of development, including proposed development or modification of clinical practice guidelines and recommendations, provider training materials, patient brochures, and other clinical support tools, scientific journal publications, models, simulations, and applications are established and/or achievable.
  - Whether the schedule and milestones for bringing the intervention to the next level of development are reasonable and achievable.
  - Whether the risk analysis for implementation of findings generated from the proposed research is realistic and reasonable.
  - How well the application identifies intellectual property ownership, demonstrates the appropriate access to all intellectual property rights necessary for development and commercialization, describes an appropriate intellectual and material property plan among participating organizations (if applicable), and addresses any impact of

intellectual property issues on product development and subsequent government access to products supported by this program announcement.

- **Personnel and Communication**
    - Whether the background and expertise of the PI and other key personnel demonstrate their ability to perform the proposed work.
    - Whether the levels of effort by the PI and other key personnel are appropriate to ensure the successful conduct of the project.
    - How the PI's record of accomplishment demonstrates their ability to accomplish the proposed work.
    - If applicable, whether the inclusion of any external consultants is justified to ensure the successful completion of the project.
    - If applicable, whether the inclusion of any personnel working at international sites is adequately justified.
    - If applicable, whether communication and data transfer between/among the PI's research team and any collaborating institutions are adequately described.
    - To what extent the patient advocate will play an integral role in the planning, design, implementation, and evaluation of the research.
    - Whether the patient advocate's knowledge of issues in one of the FY24 PRMRP Topic Areas and their background will contribute to the project.

Scored review criteria for applications submitted <u>with</u> a proposed clinical trial:

- **Clinical Impact**
    - How impactful the anticipated outcomes of the proposed clinical trial would be to the target population with regard to the FY24 PRMRP Topic Area and FY24 PRMRP Strategic Goal addressed.
    - How well the sample population represents the targeted patient population that might benefit from the proposed intervention.
    - How the anticipated outcomes of the proposed clinical trial will provide/improve short-term benefits for individuals.
    - How significantly the long-term benefits for implementation of the behavioral or lifestyle intervention may impact patient care and/or quality of life.

- **Research Strategy and Feasibility**
    - How well the scientific rationale for clinically testing the behavioral or lifestyle intervention is supported by the preliminary data, critical review and analysis of the literature, and/or laboratory/preclinical evidence.
    - How well the study aims, hypotheses and/or objective(s), experimental design, methods, data collection procedures, and analyses are designed to answer clearly the clinical objective.
    - How well the inclusion and randomization criteria meet the needs of the proposed clinical trial.
    - How well the exclusion criteria are justified.
    - How well plans to collect specimens and conduct laboratory evaluations are addressed, if applicable.
    - To what degree the data collection instruments (e.g., surveys, questionnaires), if applicable, are appropriate to the proposed study.
    - To what extent the data will be collected and analyzed in a manner consistent with the study aims.
    - Whether the research can be completed within the proposed period of performance.
- **Clinical Trial Strategy**
    - Whether the preliminary data and literature citations support the rationale for the proposed clinical trial.
    - To what degree the intervention and endpoints to be measured are described.
    - To what degree the proposed methodology shows a clear course of action and supports the initiation of the clinical study within the first year.
    - How well the study population is described, including recruitment plans and inclusion/exclusion criteria.
    - How well potential challenges and alternative strategies are described.
    - To what degree the clinical trial will inform correlative clinical research, if applicable.
- **Statistical Plan**
    - To what degree the statistical model and data analysis plan are suitable for the planned study.

- How the statistical plan, including sample size projections and power analysis, is adequate for the study and all proposed correlative studies.
- If applicable, whether the statistical plan compensates for the use of a subpopulation of a recruited sample population to ensure appropriate power can be achieved within the subpopulation study.

- **Recruitment, Accrual, and Feasibility**
  - How well the application addresses the availability of human subjects for the clinical trial and the prospect of their participation.
  - Whether the application demonstrates access to the proposed human subjects population.
  - The degree to which the recruitment, informed consent, screening, and retention processes for human subjects will meet the needs of the proposed clinical trial.
  - How well the application identifies possible delays (e.g., slow accrual, attrition) and presents adequate contingency plans to resolve them.
  - To what extent the proposed clinical trial might affect the daily lives of the individual human subjects participating in the study (e.g., will human subjects still be able to take their regular medications while participating in the clinical trial? Are human subjects required to stay overnight in a hospital?).
  - Whether the strategy for the inclusion of women and minorities is well-described and appropriate to the objectives of the study.
  - Whether the distribution of the proposed enrollment on the basis of sex/gender, race, and/or ethnicity is appropriate for the proposed research.

- **Ethical Considerations**
  - Whether the population selected to participate in the trial stands to benefit from the knowledge gained.
  - How well the level of risk to human subjects is minimized and whether the safety monitoring and reporting plan is appropriate for the level of risk.
  - How well the evidence shows that the procedures are consistent with sound research design and, when appropriate, that these procedures are already in use for diagnostic or treatment purposes.
  - To what degree privacy and confidentiality issues are appropriately considered.
  - To what degree the process for seeking informed consent is appropriate and whether safeguards are in place for vulnerable populations.

- **Transition Plan and Regulatory Considerations**
    - For investigator-sponsored regulatory exemptions (e.g., IND, IDE), whether there is evidence of appropriate institutional support, including capabilities to ensure monitoring.
    - Whether the identified next level of development and/or commercialization is practical.
    - Whether the funding strategy described to transition the intervention to the next level of development is reasonable and achievable.
    - For knowledge products, whether the proposed collaborations and other resources for providing continuity of development, including proposed development or modification of clinical practice guidelines and recommendations, provider training materials, patient brochures, and other clinical support tools, scientific journal publications, models, simulations, and applications are established and/or achievable.
    - Whether the schedule and milestones for transitioning the intervention to the next level of development through to a clinically meaningful outcome (next-phase clinical trials, transition to industry, delivery to the market, and/or incorporation into clinical practice) are achievable.
    - If applicable, whether the risk analysis for implementation is realistic and reasonable.
    - How well the application identifies intellectual property ownership, demonstrates the appropriate access to all intellectual property rights necessary for development and commercialization, describes an appropriate intellectual and material property plan among participating organizations (if applicable), and addresses any potential impact of intellectual property issues on product development and subsequent government access to products supported by this program announcement.
- **Personnel and Communication**
    - Whether the composition of the study team (e.g., study coordinator, statistician) is appropriate.
    - To what degree the study team's background and expertise are appropriate to accomplish the proposed work (e.g., statistical expertise, expertise in the disease, and expertise in conducting clinical trials).
    - Whether the levels of effort of the study team members are appropriate for successful conduct of the proposed trial.
    - How well the logistical aspects of the proposed clinical trial (e.g., communication plan, data transfer and management, standardization of procedures) meet the needs of the proposed clinical trial.
    - For multi-site clinical trials, how well the lead site responsibilities and human research protections regulatory coordination are defined and planned for.

- If applicable, whether the inclusion of any external consultants is justified to ensure the successful completion of the project.
- If applicable, whether the inclusion of any personnel working at international sites is adequately justified.
- If applicable, whether communication and data transfer between/among the PI's research team and any collaborating institutions are adequately described.
- To what extent the patient advocate will play an integral role in the planning, design, implementation, and evaluation of the research.
- Whether the patient advocate's knowledge of issues in one of the FY24 PRMRP Topic Areas and their background will contribute to the project.

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

- **Budget**
  - Whether the **direct** costs exceed the allowable direct costs as published in the program announcement.
  - Whether the budget is appropriate for the proposed research.
- **Environment**
  - If applicable, whether appropriate resources or support are available at each participating center or institution.
- **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 FY24 PRMRP, as evidenced by the following:
  - Adherence to the intent of the award mechanism
  - Relative clinical impact

- Relevance to military health
- Relevance to the FY24 PRMRP Topic Areas
- Relevance to the FY24 PRMRP Strategic Goals
- Program portfolio composition
- Relative outcomes from the PI's previous CDMRP-/PRMRP-funded research (if applicable)

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.health.mil/about/2tierRevProcess.

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

II.E.3. Integrity and Performance Information

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

An applicant organization may review SAM and submit comments on any information currently available about the organization that a federal awarding agency previously entered. The federal awarding agency will consider any comments by the applicant, in addition to other information

in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under federal awards when determining a recipient's qualification prior to award, according to the qualification standards of the Department of Defense Grant and Agreement Regulations (DoDGARs), Section 22.415.

II.F. Federal Award Administration Information

II.F.1. Federal Award Notices

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

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

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

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

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

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

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

II.F.2. PI Changes and Award Transfers

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

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

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

II.F.3. Administrative and National Policy Requirements

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

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

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

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

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

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

II.F.4. Reporting

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

For applications including a proposed clinical trial: Quarterly and annual technical progress reports as well as final technical progress reports will be required. Quarterly, annual, and final technical reports must be prepared in accordance with the Research Performance Progress Report (RPPR).

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

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 whether and how the research supported by this award will progress and must include source(s) of funding, either known or pending.

PHS Inclusion Enrollment Reporting Requirement: Enrollment reporting on the basis of sex/gender, race, and/or ethnicity will be required with each annual and final progress report. The PHS Inclusion Enrollment Report is available on the "Funding Opportunities & Forms" web page (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 SAM about certain civil, criminal, and administrative proceedings that reached final disposition within the most recent 5-year period and that were connected with performance of a federal award. These recipients are required to disclose, semiannually, information about criminal, civil, and administrative proceedings as specified in the applicable Representations (see General Application Instructions, Appendix 8, Section B).

II.G. Federal Awarding Agency Contacts

II.G.1. eBRAP Help Desk

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

Phone: 301-682-5507

Email: help@eBRAP.org

II.G.2. Grants.gov Contact Center

Questions regarding Grants.gov registration and Workspace

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

Email: support@grants.gov

II.H. Other Information

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

Questions related to this program announcement should refer to the program name, the program announcement name, and the program announcement version code 900. The program announcement numeric version code will match the General Application Instructions version code 900.

II.H.2. Administrative Actions

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

II.H.2.a. Rejection

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

- Pre-application (LOI) 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 full application:

- An FY24 PRMRP Programmatic Panel member is named as being involved in the research proposed or is found to have assisted in the pre-application or application processes including, but not limited to, concept design, application development, budget preparation, and the development of any supporting documentation, including letters of support/recommendation. ***A list of the FY24 PRMRP Programmatic Panel members can be found at https://cdmrp.health.mil/prmrp/panels/panels24***.
- The application fails to conform to this program announcement description.
- Inclusion of URLs, with the exception of links in References Cited and Publication and/or Patent Abstract sections.

- Applications that include names of personnel from either of the CDMRP peer or programmatic review companies. For FY24, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (https://cdmrp.health.mil/about/2tierRevProcess).
- Personnel from applicant or collaborating organizations are found to have contacted persons involved in the review or approval process to gain protected evaluation information or to influence the evaluation process.
- Applications from extramural organizations, including non-DOD federal agencies, received through eBRAP.
- Applications submitted by a federal government organization (including an intramural DOD organization) may be withdrawn if (a) the organization cannot accept and execute the entirety of the requested budget in current fiscal year (FY24) funds and/or (b) the federal government organization cannot coordinate the use of contractual, assistance, or other appropriate agreements to provide funds to collaborators.
- Application includes research data that are classified and/or proposes research that may produce classified outcomes, or outcomes deemed sensitive to national security concerns.
- Submission of the same research project to different funding opportunities within the same program and fiscal year.
- The application fails to address one of the congressionally directed FY24 PRMRP Topic Areas.
- The application fails to address one of the FY24 PRMRP Strategic Goals.
- The investigator is named as PI on more than one application submitted to the FY24 PRMRP LBIRA mechanism.
- The PI does not meet the eligibility criteria.
- The proposed project includes animal research.
- The proposed intervention requires an IND/IDE or includes a pharmacological intervention or invasive device.
- Human Subject Recruitment and Safety Procedures (Attachment 7) is missing.
- Data Management and Sharing (Attachment 8) is missing.

II.H.2.d. Withhold

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

II.H.3. Full Application Submission Checklist

Full Application Components	Uploaded
SF424 Research & Related Application for Federal Assistance *(Extramural submissions only)*	☐
Summary (Tab 1) and Application Contacts (Tab 2) *(Intramural submissions only)*	☐
Attachments	
Project Narrative – Attachment 1; upload as "ProjectNarrative.pdf"	☐
Supporting Documentation – Attachment 2; upload as "Support.pdf"	☐
Technical and Lay Abstracts – Attachment 3; upload as "Abs.pdf"	☐
Statement of Work – Attachment 4; upload as "SOW.pdf"	☐
Impact and Relevance to Military Health Statement – Attachment 5; upload as "Impact.pdf	☐
Clinical Strategy Statement *(if applicable)* – Attachment 6; upload as "Clinical.pdf"	☐
Human Subject Recruitment and Safety Procedures – Attachment 7; upload as "HumSubProc.pdf"	☐
Data Management and Sharing – Attachment 8; upload as "Data_Manage.pdf"	☐
Patient Advocate Involvement Statement – Attachment 9; upload as "Advocate.pdf"	☐
Study Personnel and Organization – Attachment 10; upload as "Personnel.pdf"	☐
Questionnaires and Other Research Data Collection Instruments *(if applicable)* – Attachment 11; upload as "Data_Collection.pdf	☐
Post-Award Transition Plan – Attachment 12; upload as "Transition.pdf	☐
Prior Outcomes Statement – Attachment 13; upload as "Outcomes.pdf" *(if applicable)*	☐
Representations *(Extramural submissions only)* – Attachment 14 upload as "RequiredReps.pdf"	☐
Suggested Intragovernmental/Intramural Budget Form *(if applicable)* – Attachment 15 upload as "IGBudget.pdf"	☐
Research & Related Personal Data	☐
Research & Related Senior/Key Person Profile (Expanded)	☐
Attach PI Biographical Sketch (Biosketch_LastName.pdf)	☐
Attach PI Previous/Current/Pending Support (Support_LastName.pdf)	☐
Attach Biographical Sketch (Biosketch_LastName.pdf) for each senior/key person	☐
Attach Previous/Current/Pending (Support_LastName.pdf) for each senior/key person	☐

Research & Related Budget *(Extramural submissions only)* Include budget justification	☐
Budget *(Intramural submissions only)* Include budget justification	☐
Project/Performance Site Location(s) Form	☐
Research & Related Subaward Budget Attachment(s) Form *(if applicable)*	☐

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APPENDIX 1: ACRONYM LIST

ACOS/R&D	Associate Chief of Staff for Research and Development
ACURO	Animal Care and Use Review Office
CDMRP	Congressionally Directed Medical Research Programs
CFR	Code of Federal Regulations
DOD	Department of Defense
DoDGARs	Department of Defense Grant and Agreement Regulations
eBRAP	Electronic Biomedical Research Application Portal
ET	Eastern Time
FAD	Funding Authorization Document
FY	Fiscal Year
IDE	Investigational Device Exemption
IND	Investigational New Drug
IRB	Institutional Review Board
LBIRA	Lifestyle and Behavioral Health Interventions Research Award
LOI	Letter of Intent
M	Million
MB	Megabytes
MIPR	Military Interdepartmental Purchase Request
OHARO	Office of Human and Animal Research Oversight (previously Office of Research Protections)
PDF	Portable Document Format
PHS	Public Health Service
PI	Principal Investigator
PRMRP	Peer Reviewed Medical Research Program
RPPR	Research Performance Progress Report
SAM	System for Award Management
SOW	Statement of Work
STEM	Science, Technology, Engineering, and/or Mathematics
UEI	Unique Entity Identifier
URL	Uniform Resource Locator
USAMRAA	U.S. Army Medical Research Acquisition Activity
USAMRDC	U.S. Army Medical Research and Development Command
USC	United States Code
VA	U.S. Department of Veterans Affairs

APPENDIX 2: DOD AND VA WEBSITES

PIs are encouraged to integrate and/or align their research projects with DOD and/or VA research laboratories and programs. Collaboration with DOD or VA investigators is also encouraged. Below is a list of websites that may be useful in identifying additional information about DOD and VA areas of research interest, ongoing research, or potential opportunities for collaboration within the FY24 PRMRP Topic Areas.

Air Force Office of Scientific Research
https://www.afrl.af.mil/AFOSR/

Air Force Research Laboratory
https://www.afrl.af.mil/

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

Combat Casualty Care Research Program
https://cccrp.health.mil/Pages/default.aspx

Congressionally Directed Medical Research Programs
https://cdmrp.health.mil/

Defense Advanced Research Projects Agency
https://www.darpa.mil/

Defense Health Agency
https://health.mil/About-MHS/OASDHA/Defense-Health-Agency/

Defense Suicide Prevention Office
https://www.dspo.mil/

Defense Technical Information Center
https://www.dtic.mil/

Defense Threat Reduction Agency
https://www.dtra.mil/

Military Health System Research Symposium
https://mhsrs.health.mil/sitepages/home.aspx

Military Infectious Diseases Research Program
https://midrp.health.mil/

Military Operational Medicine Research Program
https://momrp.health.mil/

Navy Bureau of Medicine and Surgery
https://www.med.navy.mil/

Naval Health Research Center
https://www.med.navy.mil/Naval-Medical-Research-Command/R-D-Commands/Naval-Health-Research-Center/

Navy and Marine Corps Public Health Center
https://www.med.navy.mil/Navy-and-Marine-Corps-Force-Health-Protection-Command/

Naval Medical Research Command
https://www.med.navy.mil/Naval-Medical-Research-Command/

Office of Naval Research
https://www.med.navy.mil/

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

Telemedicine and Advanced Technology Research Center
https://www.tatrc.org/

Uniformed Services University of the Health Sciences
https://www.usuhs.edu

U.S. Army Aeromedical Research Laboratory
https://usaarl.health.mil/

U.S. Army Combat Capabilities Development Command
https://www.army.mil/devcom

U.S. Army Institute of Surgical Research
https://usaisr.health.mil/

U.S. Army Medical Materiel Development Activity
https://usammda.health.mil/

U.S. Army Medical Research and Development Command
https://mrdc.health.mil/

U.S. Army Medical Research Institute of Infectious Diseases
https://usamriid.health.mil/

U.S. Army Research Institute of Environmental Medicine
https://usariem.health.mil/

U.S. Army Research Laboratory
https://www.arl.army.mil/

U.S. Army Sharp, Ready and Resilient Directorate
https://www.armyresilience.army.mil/sharp/index.html

U.S. Department of Defense Blast Injury Research Program
https://blastinjuryresearch.health.mil/

U.S. Department of Veterans Affairs, Office of Research and Development
https://www.research.va.gov/

U.S. Naval Research Laboratory
https://www.nrl.navy.mil/

Walter Reed Army Institute of Research
https://wrair.health.mil/