I. OVERVIEW OF THE FUNDING OPPORTUNITY

Program Announcement for the Department of Defense

Defense Health Program

Congressionally Directed Medical Research Programs

Accelerating Innovation in Military Medicine

Research Award

Announcement Type: Initial

Funding Opportunity Number: W81XWH-19-DMRDP-AIMM

Catalog of Federal Domestic Assistance Number: 12.420 Military Medical Research and Development

SUBMISSION AND REVIEW DATES AND TIMES

- Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), July 26, 2019
- Invitation to Submit an Application: September 18, 2019
- Application Submission Deadline: 11:59 p.m. ET, October 30, 2019
- End of Application Verification Period: 5:00 p.m. ET, November 4, 2019
- Peer Review: January 2020
- **Programmatic Review:** March 2020

This Program Announcement must be read in conjunction with the General Application Instructions, version 20190218. The General Application Instructions document is available for downloading from the Grants.gov funding opportunity announcement by selecting the "Package" tab, clicking "Preview," and then selecting "Download Instructions."

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II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

II.A. Program Description

Applications to the Fiscal Year 2019 (FY19) Accelerating Innovation in Military Medicine (AIMM) are being solicited for the Defense Health Agency (DHA) J9, Research and Development Directorate, by the U.S. Army Medical Research Acquisition Activity (USAMRAA) using delegated authority provided by United States Code, Title 10, Section 2358 (10 USC 2358). As directed by the Office of the Assistant Secretary of Defense for Health Affairs (OASD[HA]), the DHA manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. The U.S. Army Medical Research and Materiel Command (USAMRMC) Congressionally Directed Medical Research Programs (CDMRP) provides AIMM execution management support. The execution management agent for this Program Announcement is the CDMRP.

The USAMRMC's mission is to responsively and responsibly create, develop, deliver, and sustain medical capabilities for the Warfighter. The AIMM initiative was created to accelerate transformational biomedical research for our Armed Forces and Nation. The mission of the AIMM initiative is to encourage, identify, and enable innovative research that leads to cross-cutting solutions to military health threats. Appropriations for the AIMM initiative in FY17 through FY18 totaled \$6 million (M). The FY19 appropriation is \$3M.

II.A.1. FY19 AIMM Focus Areas

To meet the intent of the award mechanism, applications submitted to the FY19 AIMM <u>must</u> address at least one of the Focus Areas listed below. *Applications that will accelerate research toward innovations applicable to <u>multi-domain operations and multi-domain operations in</u> <u>dense urban environments</u> are encouraged but not required. The FY19 AIMM Focus Areas are as follows:*

- Algorithms/tools for decision support in a deployed or operational environment to: diagnose military-relevant disease, illness, or injury; prescribe mitigation and treatment strategies; and/or determine risk of Warfighter return to duty.
- Artificial Intelligence (AI)/deep learning for integrating heterogeneous data streams and analyzing data from wearables to support making informed healthcare decisions.¹ Wearable sensor systems may pertain to, but are not limited to, the following or combinations of the following: infectious disease diagnosis; physiologic status monitoring; informing real-time casualty location and triage; and/or environmental monitoring.

¹ For examples of military applications of wearable physiological monitoring technologies applicants may review the following publication (article is not all-inclusive and proposed work is not limited to noted examples): Friedl KE. 2018. Military applications of soldier physiological monitoring. *Journal of Science and Medicine in Sport* 21(11):1147-1153. Epub 2018 Jun 20.

• AI/deep learning for analyzing and interrogating large medical data sets to: identify patterns/predictors of disease, illness, or injury; and/or identify treatment outcomes.

II.B. Award Information

The AIMM Research Award is intended to support highly creative and conceptually innovative high-risk research with the potential to accelerate critical discoveries or major advancements that will significantly impact military health and medicine. AIMM initiative funding supports novel research concepts and other efforts that initiate or enhance potential game-changers that may not be supported by other funding mechanisms or core programs.

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

Important aspects of the AIMM initiative are as follows:

• Innovation: Research deemed innovative may represent a new paradigm, challenge existing paradigms, look at existing problems from new perspectives, or exhibit other uniquely creative qualities. Research may be innovative in study concept or research methods, or provide disruptive technology or novel adaptations of existing methods or technologies. *Research that represents an incremental advance on previously published or ongoing work or research that merely suggests an improvement to an already existing developed technology or product is not considered innovative.*

Due to this award mechanism's emphasis on innovation, presentation of *preliminary data is not required*, though not prohibited. Logical reasoning and a sound scientific rationale for the proposed work must be provided in the application.

• **Impact:** The proposed research is expected to make an important and original contribution to advancing solutions relevant to military health and medicine and ultimately lead to improved outcomes for Service members, Veterans, military beneficiaries, and/or the American public.

The ultimate impact or outcomes of projects proposed under the AIMM Research Award should help to accelerate progress in at least one of the Department of Defense (DoD) medical research program areas (i.e., medical simulation and information sciences, military infectious diseases, military operational medicine, combat casualty care, radiation health effects, and clinical and rehabilitative medicine).

Cross-cutting, broadly applicable research projects with the potential to benefit multiple DoD medical research program areas are *highly encouraged*. A list of websites that may be useful in identifying additional information about ongoing DoD areas of research interest can be found in <u>Appendix 2</u>.

Funding for this award mechanism supports **applied research**. Applied research utilizes studies to understand the means to meet a recognized and specific need. It is an expansion and application of knowledge to develop useful materials, devices, and systems or methods.

It may be oriented, ultimately, toward the design and development of prototypes and new processes to meet general mission area requirements.

Applied research may translate promising basic research into solutions for broadly defined military needs, short of system development. Applied research may include hypothesis-testing and/or proof-of-concept studies as well as work that refines concepts and ideas into potential solutions with a view toward evaluating technical feasibility of emerging approaches, technologies, and promising new products.

The anticipated direct costs budgeted for the entire period of performance for an FY19 AIMM Research Award will not exceed **\$350,000**. Refer to <u>Section II.D.5, Funding Restrictions</u>, for detailed funding information.

The CDMRP expects to allot approximately \$3.0M to fund approximately six AIMM Research Award applications. Funding of applications received is contingent upon the availability of Federal funds for this program as well as the number of applications received, the quality and merit of the applications as evaluated by scientific and programmatic review, and the requirements of the Government. Funds to be obligated on any award resulting from this funding opportunity will be available for use for a limited time period based on the fiscal year of the funds. It is anticipated that awards made from this FY19 funding opportunity will be funded with FY19 funds, which will expire for use on September 30, 2025.

Awards will be made no later than September 30, 2020. For additional information refer to <u>Section II.F.1, Federal Award Notices.</u>

The types of awards made under the Program Announcement will be assistance agreements (grants or cooperative agreements). The level of involvement on the part of the DoD during project performance is the key factor in determining whether to award a grant or cooperative agreement.

An assistance agreement (grant or cooperative agreement) is appropriate when the Federal Government transfers a "thing of value" to a "state, local government," or "other recipient" to carry out a public purpose of support or stimulation authorized by a law of the United States, instead of acquiring property or service for the direct benefit and use of the U.S. Government. An assistance agreement can take the form of a grant or cooperative agreement. If "no substantial involvement" on the part of the funding agency is anticipated, a grant award will be made (31 USC 6304). Conversely, if substantial involvement on the part of the funding agency is anticipated, a cooperative agreement will be made (31 USC 6305) and the award will identify the specific substantial involvement. Substantial involvement may include collaboration, participation, or intervention in the research to be performed under the award. The award type, along with the start date, will be determined during the negotiation process.

Research Involving Human Anatomical Substances, Human Subjects, or Human

Cadavers: All DoD-funded research involving new and ongoing research with human anatomical substances, human subjects, or human cadavers must be reviewed and approved by the USAMRMC Office of Research Protections (ORP), Human Research Protection Office (HRPO), prior to research implementation. This administrative review requirement is in addition

to the local Institutional Review Board (IRB) or Ethics Committee (EC) review. Local IRB/EC approval at the time of submission is *not* required. The HRPO is mandated to comply with specific laws and requirements governing all research involving human anatomical substances, human subjects, or human cadavers that is supported by the DoD. These laws and requirements will necessitate information in addition to that supplied to the IRB/EC. Allow a minimum of 2 to 3 months for HRPO regulatory review and approval processes. Additional time for regulatory reviews may be needed for clinical studies taking place in international settings. When possible, protocols should be written for research with human subjects and/or human anatomical substances that are specific to the DoD-supported effort outlined in the submitted application as a stand-alone study. Submission to HRPO of protocols involving more than the scope of work in the DoD-funded award will require HRPO review of the entire protocol (DoD and non-DoD funded). DoD human subjects protection requirements may be applied to non-DoD funded work and necessitate extensive revisions to the protocol. Applications that involve recruitment of human subjects must indicate the quarterly enrollment targets across all sites in Attachment 5: Statement of Work (SOW). Successful applicants will work with USAMRAA to establish milestones for human subjects recruitment. Continued support for the project will be based upon satisfactory progress in meeting the established milestones. Refer to the General Application Instructions, Appendix 1, and the Human Subject Resource Document available on the electronic Biomedical Research Application Portal (eBRAP) "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm) for additional information.

Proposed research may involve human subjects, but *clinical trials do not meet the intent of this award mechanism. New FY19 definition:* A clinical trial is a research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other control) to evaluate the effects of the interventions on biomedical or behavioral health-related outcomes.

Use of DoD or Department of Veterans Affairs (VA) Resources: If the proposed research involves access to active duty military patient populations and/or DoD resources or databases, the application must describe the access at the time of submission and include a plan for maintaining access as needed throughout the proposed research. Access to target active duty military patient population(s) and/or DoD resource(s) or database(s) should be confirmed by including a letter of support, signed by the lowest-ranking person with approval authority.

If the proposed research involves access to VA patient populations, VA study resources and databases, and/or VA research space and equipment, VA Principal Investigators (PIs) must have a plan for obtaining and maintaining access throughout the proposed research. Access to VA patients, resources, and/or VA research space should be confirmed by including a letter of support from the VA Facility Director(s) or individual designated by the VA Facility Director(s), such as the Associate Chief of Staff for Research and Development (ACOS/R&D) or Clinical Service Chief. If appropriate, the application should identify the VA-affiliated non-profit corporation (NPC) as the applicant institution for VA PIs. If the VA NPC is not identified as the applicant institution for administering the funds, the application should 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.

Access to certain DoD or VA patient populations, resources, or databases may only be obtained by collaboration with a DoD or VA investigator who has a substantial role in the research and may not be available to a non-DoD or non-VA investigator if the resource is restricted to DoD or VA personnel. Investigators should be aware of which resources are available to them if the proposed research involves a non-DoD or non-VA investigator collaborating with the DoD and/or VA. If access cannot be confirmed at the time of application submission, the Government reserves the right to withdraw or revoke funding until the PI has demonstrated support for and access to the relevant population(s) and/or resource(s). Refer to <u>Section II.D.2.b.ii, Full</u> <u>Application Submission Components</u>, for detailed information.

Research Involving Animals: All DoD-funded research involving new and ongoing research with animals must be reviewed and approved by the USAMRMC ORP Animal Care and Use Review Office (ACURO), in addition to the local Institutional Animal Care and Use Committee (IACUC) of record. IACUC approval at the time of submission is *not* required. Specific documents relating to the use of animals in the proposed research will be requested **if the application is selected for funding**. The ACURO must review and approve all animal use prior to the start of working with animals, including amendments to ongoing projects. PIs must submit the institutional animal use protocol, IACUC approval of that protocol, and a version of the animal use appendix titled, "Research Involving Animals." *Allow at least 2 to 3 months for ACURO regulatory review and approval processes for animal studies*. Refer to the General Application Instructions, Appendix 1, for additional information.

The CDMRP intends that information, data, and research resources generated under awards funded by this Program Announcement be made available to the research community (which includes both scientific and consumer advocacy communities) and to the public at large. For additional guidance, refer to the General Application Instructions, Appendix 2, Section K.

II.C. Eligibility Information

II.C.1. Eligible Applicants

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

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

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

Extramural Organization: An eligible non-DoD organization. Examples of extramural organizations include academic institutions, biotechnology companies, foundations, other Federal Government organization other than the DoD, and research institutes.

Intramural DoD Organization: A DoD laboratory, DoD military treatment facility, and/or DoD activity embedded within a civilian medical center.

Note: Applications from an intramural DoD organization or from an extramural Federal Government organization may be submitted to Grants.gov through a research foundation.

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

II.C.1.b. Principal Investigator: Investigators at all academic levels (or equivalent) are eligible to be named as PI.

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

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

II.C.2. Cost Sharing

Cost sharing/matching is not an eligibility requirement.

II.C.3. Other

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

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

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

II.D. Application and Submission Information

Extramural Submission: An application submitted by an organization to Grants.gov.

Intramural DoD Submission: An application submitted by a DoD organization to eBRAP.

II.D.1. Address to Request Application Package

eBRAP is a multifunctional web-based system that allows PIs to submit their pre-applications electronically through a secure connection, to view and edit the content of their pre-applications and full applications, to receive communications from the CDMRP, and to submit documentation during award negotiations and period of performance.

Extramural Submissions:

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

Intramural DoD Submissions:

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

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

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

Submission is a two-step process requiring both *pre-application* and *full application* as indicated below. The submission process should be started early to avoid missing deadlines. There are no grace periods.

Pre-Application Submission: All pre-applications for both extramural and intramural organizations must be submitted through eBRAP (<u>https://eBRAP.org/</u>).

Full Application Submission: Full applications must be submitted through the online portals as described below.

Extramural Organization Submissions: Full applications from extramural organizations must be submitted through Grants.gov Workspace. Applications submitted by extramural organizations (e.g., research foundations) on behalf of intramural DoD or other Federal organizations or investigators will be considered extramural submissions. Applications from extramural organizations, including non-DoD Federal organizations, received through eBRAP will be withdrawn. See definitions in <u>Section II.C.1</u>, Eligible Applicants.

Intramural DoD Organization Submissions: Intramural DoD organizations may submit full applications to either eBRAP or Grants.gov. Intramural DoD organizations that are unable to submit to Grants.gov should submit through eBRAP. Intramural DoD organizations with the capability to submit through Grants.gov may submit following the instructions for extramural submissions through Grants.gov or may submit to eBRAP.

For Both Extramural and Intramural Applicants: eBRAP allows an organization's representatives and PIs to view and modify the full application submissions associated with them. eBRAP will validate full application files against the specific Program Announcement requirements, and discrepancies will be noted in an email to the PI and in the "Full Application Files" tab in eBRAP. It is the applicant's responsibility to review all application components for accuracy as well as ensure proper ordering as specified in this Program Announcement.

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

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

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

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

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

All pre-application components must be submitted by the PI through eBRAP (<u>https://eBRAP.org/</u>). Because the invitation to submit an application is based on the contents of the pre-application, investigators should not change the title or research objectives after the pre-application is submitted.

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

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

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

• Tab 1 – Application Information

Submission of application information includes assignment of primary and secondary research classification codes, which may be found at <u>https://ebrap.org/eBRAP/public/Program.htm</u>. Note that the codes have recently been revised. Applicants are strongly encouraged to review and confirm the codes prior to making their selection.

• Tab 2 – Application Contacts

Enter contact information for the PI. Enter the organization's Business Official responsible for sponsored program administration (the "person to be contacted on matters involving this

application" in Block 5 of the Grants.gov SF424 Research & Related Form). The Business Official must be either selected from the eBRAP list or invited in order for the pre-application to be submitted.

Select the performing organization (site at which the PI will perform the proposed work) and the contracting organization (organization submitting on behalf of the PI, which corresponds to Block 5 on the Grants.gov SF424 Research & Related Form), and click on "Add Organizations to this Pre-application." The organization(s) must be either selected from the eBRAP drop-down list or invited in order for the pre-application to be submitted.

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

• Tab 3 – Collaborators and Key Personnel

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

FY19 AIMM Programmatic Panel members should not be involved in any pre-application or application. For questions related to panel members and pre-applications or applications, refer to <u>Section II.H.2.c. Withdrawal</u>, or contact the CDMRP Help Desk at <u>help@eBRAP.org</u> or 301-682-5507.

• Tab 4 – Conflicts of Interest (COIs)

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

• Tab 5 – Pre-Application Files

Note: Upload documents as individual PDF files unless otherwise noted. eBRAP will not allow a file to be uploaded if the number of pages exceeds the limit specified below.

- **Preproposal Narrative:** Provide responses in the appropriate data fields for the following:
 - Describe the proposed research idea to be pursued. Include background and rationale, hypothesis/objectives, and a brief description of specific aims to address the hypothesis (2,000-character limit).
 - Describe how the proposed research provides disruptive technologies as an innovative "leap ahead" and represents more than an incremental advance upon previously published work and/or currently funded, ongoing work (1,000character limit).
 - Describe how the research will initiate, accelerate, or enhance critical discoveries or major advancements in military health and medicine. Include how it is

relevant to at least one of the <u>FY19 AIMM Focus Areas</u> and cross-cutting over the DoD medical research program areas (2,000-character limit).

- **Pre-Application Supporting Documentation:** The items to be included as supporting documentation for the pre-application *must be uploaded as individual files* and are limited to the following:
 - Additional Information (optional; one-page limit): Upload as "AddInfo.pdf". One page for additional information that can be used, at the applicant's discretion, to provide supporting data, rationale, or references cited for the pre-application. The page limit applies to text and non-text elements (e.g., figures, tables, graphs, photographs, diagrams, chemical structures, drawings) used to describe the project. If no additional information will be submitted, include a page with the statement "No additional information."

• Tab 6 – Submit Pre-Application

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

Pre-Application Screening

• Pre-Application Screening Criteria

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

- **Research:** How well a clear hypothesis/objective is stated and supported through scientific rationale. How well the specific aims and study design or scientific approach will address the hypothesis/objective.
- **Innovation:** To what degree the proposed research is a disruptive and innovative "leap ahead" and represents more than an incremental advance upon previously published work and/or currently funded, ongoing work.
- **Impact:** If successful, the extent to which the research will promote critical discoveries or major advancements in military health and medicine and serve as a game-changer for improving outcomes for Service members, Veterans, or military beneficiaries. To what degree the proposed project is relevant to the FY19 AIMM Focus Area(s) being addressed. To what degree the proposed project has the potential to accelerate progress in at least one of the DoD medical research program areas and to what extent the research is cross-cutting in nature.

Notification of Pre-Application Screening Results

Following the pre-application screening, PIs will be notified as to whether or not they are invited to submit applications; however, they will not receive feedback (e.g., a critique of strengths and weaknesses) on their pre-application. The estimated timeframe for notification

of invitation to submit an application is indicated in <u>Section I, Overview of the Funding</u> <u>Opportunity</u>. Invitations to submit a full application are based on the Pre-Application Screening Criteria listed above.

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

Applications will not be accepted unless notification of invitation has been received.

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

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

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

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

Extramural Submissions	Intramural DoD Submissions	
Application Package Location		
Download application package components for W81XWH-19-DMRDP-AIMM from Grants.gov (<u>https://www.grants.gov</u>) and create a Grants.gov Workspace. Workspace allows online completion of the application components and routing of the application package through the applicant organization for review prior to submission.	Download application package components for W81XWH-19-DMRDP-AIMM from eBRAP (<u>https://ebrap.org</u>).	

Table 1. Full Application Submission Guidelines

Extramural Submissions	Intramural DoD Submissions
Full Application Pa	ckage Components
SF424 Research & Related Application for Federal Assistance Form: Refer to the General Application Instructions, Section III.A.1, for detailed information.	 Tab 1 – Summary: Provide a summary of the application information. Tab 2 – Application Contacts: This tab will be pre-populated by eBRAP; add Authorized Organizational Representative.
 Descriptions of each required file can be found under Full Application Submission Components: <u>Attachments</u> <u>Research & Related Personal Data</u> <u>Research & Related Senior/Key Person</u> <u>Profile (Expanded)</u> <u>Research & Related Budget</u> <u>Project/Performance Site Location(s) Form</u> <u>Research & Related Subaward Budget</u> <u>Attachment(s) Form</u> (if applicable) 	 Tab 3 – Full Application Files: Upload files under each Application Component in eBRAP. Descriptions of each required file can be found under Full Application Submission Components: Attachments Key Personnel Budget Performance Sites Tab 4 – Application and Budget Data: Review and edit proposed project start date, proposed end date, and budget data pre-populated from the Budget Form.
Application Pac	kage Submission
Create a Grants.gov Workspace. Add participants (investigators and Business Officials) to Workspace, complete all required forms, and check for errors before submission. Submit a Grants.gov Workspace Package. An application may be submitted through Workspace by clicking the "Sign and Submit" button on the "Manage Workspace" page, under the "Forms" tab. Grants.gov recommends submission of the application package at least 24-48 hours prior to the close date to allow time to correct any potential technical issues that may disrupt the application submission.	Submit package components to eBRAP (https://ebrap.org). Tab 5 – Submit/Request Approval Full Application: After all components are uploaded and prior to the full application submission deadline, enter your password in the space provided next to "Enter Your Password Here" and press the "Submit Full Application" button. eBRAP will notify your Resource Manager/ Comptroller/Task Area Manager or equivalent Business Official by email.
Note: If either the Project Narrative or the budget fails eBRAP validation or if the Project Narrative or the budget needs to be modified, an updated Grants.gov application package must be submitted via Grants.gov as a "Changed/Corrected Application" with the previous Grants.gov Tracking ID <i>prior to</i> the application submission deadline.	

Extramural Submissions	Intramural DoD Submissions
Application Ver	ification Period
The full application package submitted to Grants.gov may be viewed and modified in eBRAP until the end of the application verification period. During the application verification period, the full application package may be modified <i>with the</i> <i>exception of the Project Narrative and Research</i> & <i>Related Budget Form</i> .	After eBRAP has processed the full application, the organizational Resource Manager/Comptroller/ Task Area Manager or equivalent Business Official and PI will receive email notification of this status and will be able to view and modify application components in eBRAP. During the application verification period, the full application package may be modified <i>with the exception of</i> <i>the Project Narrative and Research & Related</i> <i>Budget Form</i> . Your Resource Manager/ Comptroller/Task Area Manager or equivalent Business Official should log into eBRAP to review and to approve prior to the application verification deadline.
Further In	formation
Tracking a Grants.gov Workspace Package. After successfully submitting a Workspace package, a Grants.gov Tracking Number is automatically assigned to the package. The number will be listed on the "Confirmation" page that is generated after submission. Refer to the General Application Instructions, Section III, for further information regarding Grants.gov requirements.	Refer to the General Application Instructions, Section IV, for further information regarding eBRAP requirements.

Both Extramural and Intramural Organizations: Application viewing, modification, and verification in eBRAP are strongly recommended, but not required. *The Project Narrative and Research & Related Budget Form cannot be changed after the application submission deadline.* Prior to the full application deadline, a corrected or modified full application package may be submitted. Other application components may be changed until the end of the application verification period. Verify that subaward budget(s) and budget justification forms are present in eBRAP during the application verification period. If these components are missing, upload them to eBRAP before the end of the application verification period. After the end of the application verification period, the full application cannot be modified.

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

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

• Extramural Applications Only

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

• Extramural and Intramural Applications

Attachments:

Each attachment to the full application components must be uploaded as an individual file in the format specified and in accordance with the formatting guidelines listed in the General Application Instructions, Appendix 4.

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

• Attachment 1: Project Narrative (six-page limit): Upload as

"ProjectNarrative.pdf". The page limit of the Project Narrative applies to text and nontext elements (e.g., figures, tables, graphs, photographs, diagrams, chemical structures, drawings) used to describe the project. Inclusion of URLs that provide additional information to expand the 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. Throughout the Project Narrative, describe how the proposed research is a disruptive and innovative "leap ahead" and has the potential for broadly applicable, cross-cutting advances benefitting military health and medicine as well as the general public.

- Background: Describe the problem, question, or knowledge gap related to at least one of the FY19 AIMM Focus Areas to be addressed by the proposed project. Present the ideas and reasoning on which the proposed work is based. Cite relevant literature. Describe previous experience most pertinent to the project. Preliminary data (published or unpublished) are allowed, but not required. Regardless of whether preliminary data are available, the application must demonstrate logical reasoning and provide a sound scientific rationale for the proposed project.
- **Hypothesis or Objective:** State the hypothesis to be tested and/or the objective to be reached, and the expected results.
- **Specific Aims:** Describe the project's scientific aims.

- Research Strategy: Describe the experimental design, methods, and analyses including appropriate controls in sufficient detail for evaluation. Address potential problem areas and present alternative methods and approaches. If the methodology is new or unusual, describe it in sufficient detail for evaluation. Demonstrate access to the relevant study population or resources. As relevant, describe plans for addressing issues unique to working with military populations. Describe the statistical model and data analysis plan with respect to the study objectives as appropriate to the type of study.
- Attachment 2: Supporting Documentation: Combine and upload as a single file named "Support.pdf". Start each document on a new page. If documents are scanned to PDF, the lowest resolution (100 to 150 dpi) should be used. The Supporting Documentation attachment should not include additional information such as figures, tables, graphs, photographs, diagrams, chemical structures, or drawings. These items should be included in the Project Narrative.

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

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

- Letters of Collaboration (if applicable): Provide a signed letter from each collaborating individual or organization that will demonstrate that the PI has the support or resources necessary for the proposed work. If an investigator at an intramural organization is named as a collaborator on an application submitted through an extramural organization, the application must include a letter from the collaborator's Commander or Commanding Officer at the intramural organization that authorizes the collaborator's involvement.
- Intellectual Property: Information can be found in Code of Federal Regulations, Title 2, Part 200.315 (2 CFR 200.315), "Intangible Property."
 - Intellectual and Material Property Plan (if applicable): Provide a plan for resolving intellectual and material property issues among participating organizations.
 - Commercialization Strategy (if applicable): Describe the commercialization plan. The plan should include intellectual property, market size, financial analysis, strengths and weaknesses, barriers to the market, competitors, and management team. Discuss the significance of this development effort, when it can be anticipated, and the potential commercial use for the technology being developed.
- Data and Research Resources Sharing Plan: Describe how data and resources generated during the performance of the project will be shared with the research community. Refer to the General Application Instructions, Appendix 2, Section K, for more information about the CDMRP expectations for making data and research resources publicly available.
- Use of DoD Resources (if applicable): Provide a letter of support signed by the lowest-ranking person with approval authority confirming access to active duty military populations and/or DoD resources or databases.
- Use of VA Resources (if applicable): Provide a letter of support from the VA Facility Director(s) or individual designated by the VA Facility Director(s), such as the ACOS/R&D or Clinical Service Chief confirming access to VA patients, resources, and/or VA research space. For VA PIs, if the VA NPC is not identified as the applicant institution for administering the funds, include a letter from the VA ACOS/R&D confirming this arrangement and identifying the institution that will administer the funds associated with the proposed research.
- Attachment 3: Technical Abstract (one-page limit): Upload as "TechAbs.pdf". The technical abstract is used by all reviewers. Abstracts of all funded research projects will be posted publicly. *Do not include proprietary or confidential information*. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

The structured technical abstract should be clear and concise and, at a minimum, provide the following information:

- **Background:** Describe the idea and rationale behind the proposed work.
- **Objective/Hypothesis:** State the objective to be reached/hypothesis to be tested.
- **Specific Aims:** State concisely the specific aims of the study.
- **Study Design:** Briefly describe the study design.
- Innovation and Impact: Describe the uniquely creative qualities of the proposed work. State the <u>FY19 AIMM Focus Area(s)</u> that the research addresses. Indicate how the proposed work will lead to the acceleration of game-changing, broadly applicable advances benefitting military health and medicine as well as the general public.
- Attachment 4: Lay Abstract (one-page limit): Upload as "LayAbs.pdf". The lay abstract is used by all reviewers. Abstracts of all funded research projects will be posted publicly. *Do not include proprietary or confidential information*. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.
 - Describe the objectives and theoretical reasoning behind the proposed work in a manner readily understood by readers without a background in science or medicine. State the <u>FY19 AIMM Focus Area(s)</u> that the research addresses.
 - Describe the problem or question to be addressed and the ultimate applicability and impact of the research.
 - What is novel about this work and how will it lead to cross-cutting advances in military health and medicine?
 - What are the potential clinical applications, benefits, and risks?
 - Describe how the proposed project will benefit Service members, Veterans, military beneficiaries, and/or the American public.
- Attachment 5: Statement of Work (three-page limit): Upload as "SOW.pdf". The suggested SOW format and examples specific to different types of research projects are available on the eBRAP "Funding Opportunities & Forms" web page (<u>https://ebrap.org/eBRAP/public/Program.htm</u>). For the AIMM Research Award mechanism, use the SOW format example titled "SOW Generic Format." The SOW must be in PDF format prior to attaching.

The SOW should include a list of major tasks that support the proposed specific aims, followed by a series of subtasks outlined related to the major tasks and milestones within the period of performance. The SOW should describe only the work for which funding is being requested by this application and, as applicable, should also:

- Include the name(s) of the key personnel and contact information for each study site/ subaward site.
- Indicate the number (and type, if applicable) of research subjects (animal or human) and/or human anatomical samples projected or required for each task and at each site. Refer to the General Application Instructions, Appendix 1, for additional information regarding regulatory requirements.
- For studies with prospective accrual of human subjects, indicate quarterly enrollment targets.
- Identify cell line(s) and commercial or organizational source(s) to be used.
- If applicable, indicate timelines required for regulatory approvals relevant to human subjects research (e.g., Investigational New Drug and Investigational Device Exemption applications) by the U.S. Food and Drug Administration or other Government agency.
- Attachment 6: Innovation Statement (one-page limit): Upload as "Innovation.pdf". Describe how the proposed research is unique and novel. Describe how this research can overtake current, incrementally progressing research in the field and accelerate advances in military health and medicine. Describe how the proposed work is a true disruptive and innovative "leap ahead" rather than an incremental advancement for an existing research effort. Provide evidence that the research is more than just an improvement to an existing developed technology or product, if applicable.
- Attachment 7: Impact/Outcomes Statement (one-page limit): Upload as "Impact.pdf". Describe the major advancements in military health and medicine that will result from this research. Explain in detail how the research will impact the FY19 <u>AIMM Focus Area(s)</u> being addressed. Describe how the research is cross-cutting with the potential to benefit multiple DoD medical research program areas. Describe how it will be a game-changer that will ultimately lead to improved outcomes for Service members, Veterans, military beneficiaries, and/or the American public. Include the timeline to realize the anticipated outcomes of the research. Expand upon the dual (military and public) purpose for the research, as appropriate.
- Attachment 8: Representations, if applicable (extramural submissions only): Upload as "RequiredReps.pdf". All extramural applicants must complete and submit the Required Representations template available on eBRAP (<u>https://ebrap.org/eBRAP/public/Program.htm</u>). For more information, see the General Application Instructions, Appendix 5, Section B, Representations.
- Attachment 9: DoD Military Budget Form(s), if applicable: Upload as "MFBudget.pdf". If a military facility (Military Health System facility, research laboratory, medical treatment facility, dental treatment facility, or a DoD activity embedded with a civilian medical center) will be a collaborator in performance of the project, complete the DoD Military Budget Form, available for download on the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/

<u>Program.htm</u>), including a budget justification, for each military facility as instructed. The costs per year should be included on the Grants.gov Research & Related Budget Form under subaward costs. Refer to the General Application Instructions, Section III.A.8, for detailed information.

• Extramural and Intramural Applications

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

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

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

- PI Biographical Sketch (six-page limit): Upload as "Biosketch_LastName.pdf". The suggested biographical sketch format is available on the "Funding Opportunities & Forms" web page (<u>https://ebrap.org/eBRAP/public/Program.htm</u>) in eBRAP. The National Institutes of Health Biographical Sketch may also be used. All biographical sketches should be submitted in uneditable PDF format.
- PI Previous/Current/Pending Support (no page limit): Upload as "Support_LastName.pdf".
- Key Personnel Biographical Sketches (six-page limit each): Upload as "Biosketch LastName.pdf".
- Key Personnel Previous/Current/Pending Support (no page limit): Upload as "Support_LastName.pdf".

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

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

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

• Extramural Applications Only

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

- **Extramural Subaward:** Complete the Research & Related Subaward Budget Form through Grants.gov. (Refer to the General Application Instructions, Section III.A.7, for detailed information.) Verify subaward budget(s) and budget justification forms are present in eBRAP during the application verification period. If these components are missing, upload them to eBRAP before the end of the application verification period.
- Intramural DoD Collaborator(s): Complete the DoD Military Budget Form and upload to Grants.gov attachment form as <u>Attachment 9</u>. (Refer to the General Application Instructions, Section IV.A.4, for detailed information.) Each Intramural DoD Collaborator should include costs per year on the Grants.gov Research & Related Budget Form under subaward costs.

II.D.3. Dun and Bradstreet Data Universal Numbering System (DUNS) Number and System for Award Management (SAM)

Applicant organizations and all sub-recipient organizations must have a DUNS number to submit applications to Grants.gov. The applicant organization must also be registered in the Entity Management functional area of the SAM with an "Active" status to submit applications through the Grants.gov portal. Verify the status of the applicant organization's Entity registration in SAM well in advance of the application submission deadline. Allow several weeks to complete the entire SAM registration process. If an applicant has not fully complied with the requirements at the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant. Refer to the General Application Instructions, Section III, for further information regarding Grants.gov requirements.

II.D.4. Submission Dates and Times

All submission dates and times are indicated in <u>Section I, Overview of the Funding Opportunity</u>. Pre-application and application submissions are required. The pre-application and application submission process should be started early to avoid missing deadlines. There are no grace periods. Failure to meet either of these deadlines will result in submission rejection.

Applicant Verification of Full Application Submission in eBRAP

Following retrieval and processing of the full application, eBRAP will notify the organizational representatives and PI by email to log into eBRAP to review, modify, and verify the full application submission. eBRAP will validate retrieved files against the specific Program

Announcement requirements, and discrepancies will be noted in both the email and in the "Full Application Files" tab in eBRAP. 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. *If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated full application package must be submitted prior to the application submission deadline*. The Project Narrative and Budget Form cannot be changed after the application submission deadline.

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

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

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

II.D.5. Funding Restrictions

The maximum period of performance is 18 months.

The anticipated direct costs budgeted for the entire period of performance will not exceed **\$350,000**. If indirect cost rates have been negotiated, indirect costs are to be budgeted in accordance with the organization's negotiated rate. No budget will be approved by the Government exceeding **\$350,000** direct costs or using an indirect cost rate exceeding the organization's negotiated rate.

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

The applicant may request the entire maximum funding amount for a project that may have a period of performance less than the maximum **18 months**.

For this award mechanism, direct costs must be requested for:

• Travel costs for the PI to present project information or disseminate project results at one DoD Military Heath System Research Symposium during the period of performance. For planning purposes, it should be assumed that the meeting will be held in the Central Florida

Area. These travel costs are in addition to those allowed for annual scientific/technical meetings.

May be requested for (not all-inclusive):

- Salary
- Research supplies
- Support for multidisciplinary collaborations, including travel
- Travel costs for one investigator to travel to one scientific/technical meeting per year in addition to the required meeting described above. The intent of travel costs to scientific/technical meeting is to present project information or disseminate project results from the AIMM Research Award.

Must not be requested for:

- Clinical trial costs
- Equipment

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

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

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. The time is considered when establishing the award's period of performance. It is anticipated that awards made from this FY19 funding opportunity will be funded with FY19 funds, which will expire for use on September 30, 2025.

II.D.6. Other Submission Requirements

Refer to the General Application Instructions, Appendix 4, for detailed formatting guidelines.

II.E. Application Review Information

II.E.1. Criteria

II.E.1.a. Peer Review

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

• Innovation

- The degree to which the proposed work is unique and novel.
- The potential of the proposed work to overtake current, incrementally progressing research in the field and accelerate advances in military health and medicine.
- Whether the proposed work is a true disruptive and innovative "leap ahead" rather than an incremental advancement for an existing research effort.
- Whether there is evidence that the research is more than just an improvement to an existing developed technology or product.

• Impact/Outcomes

- To what extent the research will impact the <u>FY19 AIMM Focus Area(s)</u> being addressed.
- How the research is expected to make an important and original contribution to advancing solutions relevant to military health and medicine as well as the general public.
- How the research is cross-cutting with the potential to benefit multiple DoD medical research program areas.
- Whether the research will be a game-changer that will ultimately lead to improved outcomes for Service members, Veterans, military beneficiaries, and/or the American public.

• Research Strategy and Feasibility

- How well the scientific rationale supports the project and its feasibility as demonstrated by a critical review and analysis of published literature, logical reasoning, and preliminary data (not required), if applicable.
- How well the hypothesis, objectives, specific aims, experimental design, methods, statistical plan, and analyses are developed.
- How well the application acknowledges potential problems and addresses alternative approaches.
- How well the SOW indicates a feasible plan and whether the research can be completed within the proposed period of performance.
- Whether the applicant demonstrates access to the relevant study population or resources.

• If applicable, the degree to which the intellectual and material property plan is appropriate.

• PI and Key Personnel Qualifications

- 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.
- Whether the PI's record of accomplishment demonstrates his/her ability to accomplish the proposed work.

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

• Budget

- Whether the **direct** maximum costs are equal to or less than the allowable direct maximum costs as published in the Program Announcement.
- Whether the budget is appropriate for the proposed research.

Application Presentation

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

• Environment

- Whether the scientific environment is appropriate for the proposed research.
- How the research requirements are supported by the availability of and accessibility to facilities and resources (including collaborative arrangements).

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 DHP and FY19 AIMM initiative, as evidenced by the following:
 - Adherence to the intent of the award mechanism

- Programmatic relevance and relevance to the <u>FY19 AIMM Focus Areas</u>
- Military relevance
- Relative impact and innovation

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, USAMRMC, on behalf of the DHA and the OASD(HA). *The highest-scoring applications from the first tier of review are not automatically recommended for funding. Funding recommendations depend on various factors as described in <u>Section II.E.1.b,</u> <u>Programmatic Review</u>. Additional information about the two-tier process used by the CDMRP can be found at https://cdmrp.army.mil/about/2tierRevProcess. A PI Information Paper describing the funding recommendations and review process for the DMRDP AIMM Research Award will be provided to the PI and posted on the CDMRP website.*

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

II.E.3. Integrity and Performance Information

Prior to making an assistance agreement award where the Federal share is expected to exceed the simplified acquisition threshold, as defined in 2 CFR 200.88, over the period of performance, the Federal awarding agency is required to review and consider any information about the applicant that is available in the Federal Awardee Performance and Integrity Information System (FAPIIS).

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

The Federal awarding agency will consider any comments by the applicant, in addition to other information in the designated integrity and performance system, in making a judgment about the

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

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

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

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

II.F. Federal Award Administration Information

II.F.1. Federal Award Notices

Awards supported with FY19 funds are anticipated to be made no later than September 30, 2025. Refer to the General Application Instructions, Appendix 2, for additional award administration information.

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

Only an appointed USAMRAA Grants Officer may obligate the Government to the expenditure of *funds*. No commitment on the part of the Government should be inferred from discussions with any other individual. The award document signed by the Grants Officer is the official authorizing document.

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

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

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

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

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

Refer to the General Application Instructions, Appendix 2, Section B, for general information on organization or PI changes.

II.F.2. Administrative and National Policy Requirements

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

Refer to the General Application Instructions, Appendix 2, for general information regarding administrative requirements.

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

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

II.F.3. Reporting

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

Quarterly technical progress reports and quad charts, as well as annual and final technical progress reports will be required.

In addition to written progress reports, in-person presentations may be requested.

Awards resulting from this Program Announcement will incorporate additional reporting requirements related to recipient integrity and performance matters. Recipient organizations that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000 are required to provide information to FAPIIS about certain civil, criminal, and administrative proceedings that reached final disposition within the most recent 5-year period and that were connected with performance of a Federal award. Recipients are required to disclose, semiannually, information about criminal, civil, and administrative proceedings as specified in the applicable Representations (see General Application Instructions, Appendix 5, Section B).

II.G. Federal Awarding Agency Contacts

II.G.1. CDMRP Help Desk

Questions related to Program Announcement content or submission requirements as well as questions related to the pre-application or intramural application submission through eBRAP

should be directed to the CDMRP Help Desk, which is available Monday through Friday from 8:00 a.m. to 5:00 p.m. ET. Response times may vary depending upon the volume of inquiries.

Phone: 301-682-5507 Email: help@eBRAP.org

II.G.2. Grants.gov Contact Center

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

Phone: 800-518-4726; International 1-606-545-5035 Email: support@grants.gov

Sign up on Grants.gov for "send me change notification emails" by following the link on the "Synopsis" page for the Program Announcement or by responding to the prompt provided by Grants.gov when first downloading the Grants.gov application package. If the Grants.gov application package is updated or changed, the original version of the application package may not be accepted by Grants.gov.

II.H. Other Information

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

Questions related to this Program Announcement should refer to the Program name, the Program Announcement name, and the Program Announcement version code 20190218e. The Program Announcement numeric version code will match the General Application Instructions version code 20190218.

II.H.2. Administrative Actions

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

II.H.2.a. Rejection

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

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

The following will result in administrative rejection of the application:

- Submission of an application for which a letter of invitation was not received.
- 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 Preproposal Narrative and Project Narrative.
- Documents not requested will be removed.

II.H.2.c. Withdrawal

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

- An FY19 AIMM Programmatic Panel member is named as being involved in the research proposed or is found to have assisted in the pre-application or application processes including, but not limited to, concept design, application development, budget preparation, and the development of any supporting documentation. *A list of the FY19 AIMM Programmatic Panel members can be found at <u>Appendix 3</u>.*
- The application fails to conform to this Program Announcement description.
- Inclusion of URLs, with the exception of links in References Cited and Publication and/or Patent Abstract sections.
- Page size is larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).
- To preserve the integrity of its peer and programmatic review processes, the CDMRP discourages inclusion of any employee of its review contractors having any role in the preparation, research or other duties for submitted applications. For FY19, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (https://cdmrp.army.mil/about/2tierRevProcess). Applications that include names of personnel from either of these companies may be administratively withdrawn.
- Personnel from applicant or collaborating organizations are found to have contacted persons involved in the review or approval process to gain protected evaluation information or to influence the evaluation process.
- Applications from extramural organizations, including non-DoD Federal agencies, received through eBRAP may be withdrawn.

- Applications submitted by an intramural DoD organization may be withdrawn if the intramural organization cannot coordinate the use of contractual, assistance, or other appropriate agreements to provide funds to extramural collaborators.
- The invited application proposes a different research project than that described in the preapplication.
- A clinical trial is proposed.
- The application does not address at least one of the <u>FY19 AIMM Focus Areas</u>.

II.H.2.d. Withhold

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

II.H.3. Application Submission Checklist

Application Components	Action	Completed
SF424 Research & Related Application for Federal Assistance (Extramural submissions only)	Complete form as instructed	
Summary (Tab 1) and Application Contacts (Tab 2) (Intramural submissions only)	Complete tabs as instructed	
Attachments	Project Narrative: Upload as Attachment 1 with file name "ProjectNarrative.pdf"Supporting Documentation: Upload as Attachment 2 with file name "Support.pdf"Technical Abstract: Upload as Attachment 3 with file name "TechAbs.pdf"Lay Abstract: Upload as Attachment 4 with file name "LayAbs.pdf"Statement of Work: Upload as Attachment 5 with file name "SOW.pdf"Innovation Statement: Upload as Attachment 6 with file name "Innovation.pdf"Impact/Outcomes Statement: Upload as Attachment 7 with file name "Impact.pdf"Representations (extramural submissions only): Upload as Attachment 8 with file name "RequiredReps.pdf" if applicableDoD Military Budget Form(s): Upload as Attachment 9 with file name "MFBudget.pdf"	
Research & Related Personal Data	Complete form as instructed	
Research & Related Senior/Key Person Profile (Expanded)	Attach PI Biographical Sketch (Biosketch_LastName.pdf) to the appropriate fieldAttach PI Previous/Current/Pending Support (Support_LastName.pdf) to the appropriate fieldAttach Biographical Sketch (Biosketch_LastName.pdf) for each senior/key person to the appropriate fieldAttach Previous/Current/Pending 	

Application Components	Action	Completed
Research & Related Budget	Complete as instructed. Attach Budget	
(Extramural submissions	Justification (BudgetJustification.pdf) to the	
only)	appropriate field	
Budget (Intramural	Complete the DoD Military Budget Form and	
submissions only)	justification	
Project/Performance Site	Complete form as instructed	
Location(s) Form		
Research & Related Subaward		
Budget Attachment(s) Form, if applicable	Complete form as instructed	

APPENDIX 1: ACRONYM LIST

ACOS/R&D	Associate Chief of Staff for Research and Development
ACURO	Animal Care and Use Review Office
AI	Artificial Intelligence
AIMM	Accelerating Innovation in Military Medicine
CDMRP	Congressionally Directed Medical Research Programs
CFR	Code of Federal Regulations
COI	Conflict of Interest
DHA	Defense Health Agency
DHP	Defense Health Program
DoD	Department of Defense
DoDGARs	Department of Defense Grant and Agreement Regulations
DUNS	Data Universal Numbering System
eBRAP	Electronic Biomedical Research Application Portal
EC	Ethics Committee
ET	Eastern Time
FAD	Funding Authorization Document
FAPIIS	Federal Awardee Performance and Integrity Information System
FY	Fiscal Year
HRPO	Human Research Protection Office
IACUC	Institutional Animal Care and Use Committee
IRB	Institutional Review Board
JAIC	Joint Artificial Intelligence Center
Μ	Million
MIPR	Military Interdepartmental Purchase Request
MIT	Massachusetts Institute of Technology
NPC	Non-Profit Corporation
OASD(HA)	Office of the Assistant Secretary of Defense for Health Affairs
ORCID	Open Researcher and Contributor ID, Inc.
ORP	Office of Research Protections
PI	Principal Investigator
RDT&E	Research, Development, Test, and Evaluation
SAM	System for Award Management
SOW	Statement of Work
STEM	Science, Technology, Engineering, and/or Mathematics
USAMRAA	U.S. Army Medical Research Acquisition Activity
USAMRMC	U.S. Army Medical Research and Materiel Command
USC	United States Code
VA	Department of Veterans Affairs

APPENDIX 2: DoD WEBSITES

PIs are encouraged to integrate and/or align their research projects with DoD 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.

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

Air Force Research Laboratory <u>https://www.wpafb.af.mil/afrl</u>

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

Clinical and Rehabilitative Medicine Research Program https://crmrp.amedd.army.mil/

Combat Casualty Care Research Program <u>https://ccc.amedd.army.mil</u>

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

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

Defense Health Agency https://health.mil/dha

Defense Technical Information Center <u>https://discover.dtic.mil/</u>

Defense Threat Reduction Agency <u>https://www.dtra.mil/</u>

Military Health System Research Symposium <u>https://mhsrs.amedd.army.mil/SitePages/H</u> <u>o_me.aspx</u> Military Infectious Diseases Research Program https://midrp.amedd.army.mil

Military Operational Medicine Research Program <u>https://momrp.amedd.army.mil</u>

Naval Health Research Center https://www.med.navy.mil/sites/nhrc

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

Naval Medical Research Center <u>www.med.navy.mil/sites/nmrc</u>

Navy and Marine Corps Public Health Center https://www.nmcphc.med.navy.mil/

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

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

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

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

U.S. Army Aeromedical Research Laboratory www.usaarl.army.mil U.S. Army Center for Environmental Health Research <u>https://usacehr.amedd.army.mil</u>

U.S. Army Institute of Surgical Research <u>https://www.usaisr.amedd.army.mil/</u>

U.S. Army Research Institute of Environmental Medicine <u>https://www.usariem.army.mil/</u>

U.S. Army Medical Research Institute of Infectious Diseases <u>https://www.usamriid.army.mil/</u>

U.S. Army Medical Research and Materiel Command <u>https://mrmc.amedd.army.mil</u>

U.S. Army Research Institute for the Behavioral & Social Sciences <u>https://ari.altess.army.mil/</u>

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

U.S. Army Research, Development and Engineering Command https://www.army.mil/ccdc

U.S. Army Sharp, Ready & Resilient Directorate <u>https://readyandresilient.army.mil/</u>

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

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

Walter Reed Army Institute of Research <u>https://www.wrair.army.mil/</u>

APPENDIX 3: AIMM PROGRAMMATIC PANEL MEMBERS

Col Albert Bonnema

DHA Health Information Technology Information Delivery Division

Dr. Tim Dasey

Massachusetts Institute of Technology (MIT) Lincoln Laboratory, Joint Artificial Intelligence Center (JAIC)

Dr. Karl Friedl

U.S. Army Research Institute of Environmental Medicine

Dr. Tony Gover

USAMRMC Clinical and Rehabilitative Medicine Research Program

Dr. Marti Jett

U.S. Army Center for Environmental Health Research

Dr. Andrew Ladas

Army Research Laboratory, Army Futures Command

Dr. Brian Telfer MIT Lincoln Laboratory, JAIC