I. OVERVIEW OF THE FUNDING OPPORTUNITY

Program Announcement for the Department of Defense

Defense Health Program

Congressionally Directed Medical Research Programs

Autism Research Program

Clinical Translational Research Award

Announcement Type: Modified

Funding Opportunity Number: W81XWH-20-ARP-CTRA

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), April 28, 2020
- **Invitation to Submit an Application:** June 2020
- **Application Submission Deadline:** 11:59 p.m. ET, July 28, 2020
- End of Application Verification Period: 5:00 p.m. ET, July 31, 2020
- **Peer Review:** September 2020
- **Programmatic Review:** November/December 2020

This Program Announcement must be read in conjunction with the General Application Instructions, version 501. 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 2020 (FY20) Autism Research Program (ARP) 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 execution management agent for this Program Announcement is the Congressionally Directed Medical Research Programs (CDMRP). The ARP was initiated in 2007 to provide support for research of exceptional scientific merit and innovation with high impact that focuses on autism spectrum disorder (ASD). Appropriations for the ARP from FY07 through FY19 totaled \$89.4 million (M). The FY20 appropriation is \$15M.

The ARP's vision is to improve the lives of individuals with ASD now, and its mission is to promote innovative research that advances the understanding of ASD and leads to improved outcomes. The proposed research must be relevant to active duty Service members, Veterans, military beneficiaries, and/or the American public.

II.A.1. FY20 ARP Clinical Translational Research Award Areas of Interest

The FY20 ARP Clinical Translational Research Award seeks applications for early-phase clinical research. The ARP *encourages* applications that address the critical needs of the ASD community in one or more of the following areas:

- Dissemination/implementation of clinically validated interventions
- Behavioral, cognitive, and other non-pharmacological therapies for ASD core symptoms or to alleviate co-occurring conditions
- Pharmacological, genetic, and other biological treatments for ASD core symptoms or to alleviate co-occurring conditions
- Improve diagnosis and access to services across the life span
- Interventions promoting success in key transitions to adulthood for individuals living with ASD
- Healthcare provider-focused training or tools to improve healthcare delivery for individuals with ASD across the life span and the continuum of care (i.e., primary care, urgent/emergent care, and disaster relief)
- Cultural, socioeconomic, and gender factors in diagnosis, treatment efficacy, delivery, and access to services

• Understanding heterogeneity in treatment response

II.A.2. Award History

The ARP Clinical Translational Research Award mechanism was first offered in FY17. Since then, 37 Clinical Translational Research Award applications have been received, and 5 have been recommended for funding.

II.B. Award Information

The ARP Clinical Translational Research Award is intended to support early-phase, proof-of-principle translational studies that will examine hypothesis-based, innovative interventions/clinical research that has the potential to address current clinical deficits for ASD. Applications are strongly encouraged to address one of the FY20 ARP Clinical Translational Research Award Areas of Interest. If the proposed project does not address any of the FY20 ARP Clinical Translational Research Award Areas of Interest, the application should describe how the project will nevertheless address a critical need of the ASD community. Outcomes from studies funded by this award are anticipated to provide scientific rationale for subsequent development of larger, efficacy-based clinical trials of interventions that will transform ASD clinical care.

Projects are required to involve human subjects. Projects that are exclusively animal research aimed at developing or refining new technology and research to establish the efficacy/effectiveness of diagnostic agents are not allowed under this funding opportunity. The proposed studies should include early-phase, proof-of-principle studies using human subjects. The proposed studies may be interventional, including Phase 0 clinical trials or single-group intervention studies, and may involve some retrospective data analysis; however, purely retrospective or database-related research is not allowed.

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

Principal Investigators (PIs) seeking funding for a larger clinical trial should consider the ARP Clinical Trial Award (Funding Opportunity Number: W81XWH-20-ARP-CTA). Likewise, PIs seeking funding for a preclinical research project should consider the ARP Idea Development Award (Funding Opportunity Number: W81XWH-20-ARP-IDA).

For applications that include a clinical trial, the Investigational New Drug (IND)/Investigational Device Exemption (IDE) Documentation (Attachment 11) should be included. If the clinical trial involves the use of a drug that has not been approved by the U.S. Food and Drug Administration (FDA) for the proposed investigational use, evidence that an IND exemption application that meets all requirements under the Code of Federal Regulations, Title 21, Part 312 (21 CFR 312) has been submitted or will be submitted to the FDA within 90 days of award is required. If the investigational product is a device, evidence that an IDE application that meets all requirements under 21 CFR 812 has been submitted or will be submitted to the FDA within

90 days of award, or that the device is exempt from an IDE, is required. The Government reserves the right to withdraw funding if the IND or IDE application has not been submitted to the FDA within 90 days of the Department of Defense (DoD) award date or if the documented status of the IND or IDE has not been obtained within 9 months of the award date.

Research must be based on preliminary data. Although the proposed research must have direct relevance to ASD, the required preliminary data, which may include unpublished results from the laboratory of the PI, research team, or collaborators named on this application, may be from outside the ASD research field.

The following are important aspects of the research to be funded by the Clinical Translational Research Award:

- The research should include clearly defined and appropriate endpoints.
- The research should include a statistical analysis plan that will support the objectives of the study. Robust statistically powered efficacy studies are not expected at this stage of research and development.
- A transition plan (including potential funding and resources) must be included showing how the research findings or intervention will progress to the next level of development (e.g., future clinical trials) after the completion of the FY20 ARP Clinical Translational Research Award.
- The proposed clinical research must be based on sound scientific rationale that is established through logical reasoning and critical review and analysis of the literature.

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

The anticipated direct costs budgeted for the entire period of performance for an FY20 ARP Clinical Translational Research Award will not exceed **\$600,000**. Refer to <u>Section II.D.5</u>, <u>Funding Restrictions</u>, for detailed funding information.

Awards will be made no later than September 30, 2021. For additional information refer to Section II.F.1, Federal Award Notices.

The CDMRP expects to allot approximately \$1.92M to fund approximately two Clinical Translational 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 FY20 funding opportunity will be funded with FY20 funds, which will expire for use on September 30, 2026.

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 U.S. Army Medical Research and Development Command (USAMRDC) Office of Research Protections (ORP), Human Research Protection Office (HRPO), prior to research implementation. This administrative review requirement is in addition to the local Institutional Review Board (IRB) or Ethics Committee (EC) review. Local IRB/EC approval at the time of submission is not required. Allow a minimum of 2 to 3 months for HRPO regulatory review and approval processes. 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. If the proposed research is cooperative (i.e., involving more than one institution), a written plan for single IRB review arrangements must be provided at the time of proposal submission or award negotiation. The lead institution responsible for developing the master protocol and master consent form should be identified and should be the single point of contact for regulatory submissions and requirements.

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

Rigor of Experimental Design: All projects should adhere to accepted standards for rigorous study design and reporting to maximize the reproducibility and translational potential of preclinical research. Core standards are described in Landis, S.C., et al., A call for transparent reporting to optimize the predictive value of preclinical research, *Nature* 2012, 490:187-191 (https://www.nature.com/nature/journal/v490/n7419/full/nature11556.html). While these standards were written for preclinical studies, the basic principles of randomization, blinding, sample-size estimation, and data handling derive from well-established best practices in research and should be applied consistently across basic and translational studies. Applicants should consult the ARRIVE (Animal Research: Reporting *In Vivo* Experiments) guidelines to ensure relevant aspects of rigorous animal research are adequately planned for and, ultimately, reported. The ARRIVE guidelines can be found at http://www.elsevier.com/data/promis_misc/622936arrive_guidelines.pdf.

PIs are encouraged to submit their data to the National Institute of Mental Health Data Archive (NDA), a secure bioinformatics platform for data sharing of ASD-related information supported by the National Institute of Mental Health Data Archive. For more information, consult the NDA website at https://nda.nih.gov.

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, 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. Intramural Submission: Application submitted by a DoD organization for an intramural investigator working within a DoD laboratory or military treatment facility or in a DoD activity embedded within a civilian medical center.

USAMRAA makes awards to eligible organizations, not to individuals.

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 PI on the application.

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 https://orcid.org/.

II.C.2. Cost Sharing

Cost sharing/matching is not an eligibility requirement.

II.C.3. Other

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

There are no limitations on the number of applications for which an investigator may be named as a PI.

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

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

II.D. Application and Submission Information

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

Extramural Submission:

- 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 Submission:

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

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

II.D.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.

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

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

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

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

All pre-application components must be submitted by the PI through eBRAP (https://eBRAP.org/). Because the invitation to submit an application is based on the contents of the pre-application, PIs 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.

A change in PI or organization after submission of the pre-application may be allowed after review of a submitted written appeal (contact the CDMRP Help Desk at help@eBRAP.org or 301-682-5507) and at the discretion of the USAMRAA Grants Officer.

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

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

• Tab 1 – Application Information

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

• Tab 2 – Application Contacts

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

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

It is recommended that 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.

FY20 ARP Programmatic Panel members should not be involved in any pre-application or application. For questions related to panel members and pre-applications or applications, refer to Section II.H.2.c, Withdrawal, or contact the CDMRP Help Desk at help@eBRAP.org or 301-682-5507.

• Tab 4 – Conflicts of Interest

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

• Tab 5 – Pre-Application Files

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.

o **Preproposal Narrative (three-page limit):** The Preproposal Narrative page limit applies to text and non-text elements (e.g., figures, tables, graphs, photographs, diagrams, chemical structures, drawings) used to describe the project. Inclusion of URLs that

provide additional information to expand the Preproposal Narrative and could confer an unfair competitive advantage is prohibited and may result in administrative withdrawal of the pre-application.

The Preproposal Narrative should include the following:

- Research Idea: State the hypothesis to be tested or the objective to be reached and how it addresses the award mechanism and the vision of the ARP. State the FY20 ARP Clinical Translational Research Award Area(s) of Interest or a critical problem or question in ASD that will be addressed. Briefly describe the scientific evidence that supports the progression of this research into a clinical trial. Concisely state the rationale, specific aims, and provide a brief overview of the study design and the population that will be enrolled in the study.
- **Impact:** Describe the potential impact of this study on the outcomes of individuals with ASD, their families, and/or the understanding of ASD.
- **Innovation:** Describe how the proposed research is innovative and how the study represents more than an incremental advance on published data.
- **Personnel:** Clearly describe the ASD expertise of the proposed research team and how this will factor into the team's ability to successfully complete the project.
- Pre-Application Supporting Documentation: The items to be included as supporting documentation for the pre-application must be uploaded as individual files and are limited to the following:
 - References Cited (one-page limit): List the references cited (including URLs if available) in the Preproposal Narrative using a standard reference format that includes the full citation (i.e., author[s], year published, reference title, and reference source, including volume, chapter, page numbers, and publisher, as appropriate).
 - List of Abbreviations, Acronyms, and Symbols: Provide a list of abbreviations, acronyms, and symbols used in the Preproposal Narrative.
 - Key Personnel Biographical Sketches (five-page limit per individual). All biographical sketches should be uploaded as a single combined file. Biographical sketches should be used to demonstrate background and expertise through education, positions, publications, and previous work accomplished.

• 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 ARP, pre-applications will be screened based on the following criteria:

- Research Idea: How well the proposed project addresses the intent of the award mechanism and the vision of the ARP. Whether the proposed research addresses one or more of the FY20 ARP Clinical Translational Research Award Areas of Interest or a critical problem or question in ASD. How well the rationale, study design, and specific aims support the project's objective. To what extent the preliminary data support the progression into a clinical trial. To what extent the research can be accomplished with the defined study population, if applicable.
- **Impact:** What potential impact these studies will have on the outcomes of individuals with ASD, their families, and/or the understanding of ASD.
- **Innovation:** To what extent the research is innovative and represents more than an incremental advance on published data.
- **Personnel:** To what degree the PI and research team's backgrounds and ASD-related expertise are appropriate to successfully carry out the proposed research project.

• 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 Section I, Overview of the Funding Opportunity. 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 (https://www.grants.gov/) for extramural organizations or through eBRAP (https://ebrap.org/) for intramural organizations. See Table 1 below for more specific guidelines.

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

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

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

Table 1. Full Application Submission Guidelines

Extramural Submissions	Intramural DoD Submissions		
Application Pa	ckage Location		
Download application package components for W81XWH-20-ARP-CTRA from Grants.gov (https://www.grants.gov) 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-20-ARP-CTRA from eBRAP (https://ebrap.org).		
Full Application Package Components			
SF424 Research & Related Application for Federal Assistance Form: Refer to the General Application Instructions, Section III.A.1, for detailed information.	Tab 1 – Summary: Provide a summary of the application information. Tab 2 – Application Contacts: This tab will be pre-populated by eBRAP; add Authorized Organizational Representative.		
Descriptions of each required file can be found under Full Application Submission Components: • Attachments • Research & Related Personal Data • Research & Related Senior/Key Person Profile (Expanded) • Research & Related Budget	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		

Extramural Submissions	Intramural DoD Submissions
Project/Performance Site Location(s) Form	• Performance Sites Tab 4 – Application and Budget Data: Review and edit proposed project start date, proposed end date, and budget data pre-populated from the Budget Form.

Application Package Submission

Create a Grants.gov Workspace.

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

Submit a Grants.gov Workspace Package.

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

Note: If either the Project Narrative or the budget fails eBRAP validation or 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 prior to the application submission deadline. Do not password protect any files of the application package, including the Project Narrative.

Submit package components to eBRAP (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. Do not password protect any files of the application package, including the Project Narrative.

Application Verification Period

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

After eBRAP has processed the full application, the organizational Resource Manager/Comptroller/ Task Area Manager or equivalent Business Official and 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 with the exception of the Project Narrative and Research & Related Budget Form. Your Resource Manager/ Comptroller/Task Area Manager or equivalent

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

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. It is important to include the attachment name as a header on each page of the attachment files.

Attachment 1: Project Narrative (14-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 that provide additional

information to expand the Project Narrative and could confer an unfair competitive advantage is prohibited and may result in administrative withdrawal of the application.

Describe the proposed project in detail using the outline below.

- Background: Present the ideas and reasoning behind the proposed research and include relevant literature citations. Describe and show the preliminary data and/or laboratory and/or preclinical evidence to justify the rationale for the proposed project.
- Hypothesis or Objective: State the hypothesis to be tested or the objective to be reached. Describe how the project addresses one or more of the FY20 ARP Clinical Translational Research Award Areas of Interest or a critical problem or question in ASD.
- Specific Aims: Concisely explain the project's specific aims to be supported by this application. If the proposed research is correlated with a larger study, present only tasks that this award would fund.
- Research Strategy: Describe the study design, methods, and analyses, including appropriate controls, in sufficient detail for assessment. Provide a well-developed, well-integrated research strategy that supports the translational feasibility and promise of the approach. Address potential limitations and present alternatives.

If applicable, describe the following under separate subheadings:

- *Type of clinical trial:* 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. Note whether the intervention is already in use.
- *Challenges and alternative strategies:* Describe potential challenges and alternative strategies where appropriate.
- *Scope of the trial:* Outline the scope of the trial to be performed and the intervention to be tested.
- *Study variables:* Define the study variables, outline why they were chosen, and describe how they will be measured. Include a description of appropriate controls and the endpoints to be tested.
- Access to study population, recruitment plans, and inclusion/exclusion criteria: Indicate the access to the study population, recruitment plans, and inclusion/exclusion criteria. Describe how the human subject population is appropriate for the study and that there is clear access to the designated population. Specify the number of human subjects to be enrolled. If multiple study sites are involved, state the approximate number to be enrolled at each site.

- Inclusion of Women and Minorities in 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. Include an appropriate justification if women and/or minorities will be excluded from the clinical trial.
- *Consent:* Describe the informed consent process, including safeguards for vulnerable populations.
- Data management plan: Describe the data management plan. Explain measures taken to protect the privacy of human subjects and maintain confidentiality of study data.
- *Reporting:* Describe how data will be reported and how it will be assured that the documentation will support a regulatory filing with the FDA, if applicable.

Statistical Plan: Clearly describe the statistical plan and the rationale for the statistical methodology as well as an appropriate power analysis. Describe how the statistical plan is appropriate for the methodology being used. Detail how the proposed statistical analysis supports the relevance of any research outcomes FY20 ARP Clinical Translational Research Award Area(s) of Interest or to the critical problem or question in ASD identified.

• 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: 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.
- 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.
- Attachment 3: Technical Abstract (one-page limit): Upload as "TechAbs.pdf". The technical abstract is used by all reviewers. Abstracts of all funded research projects will be posted publicly. Do not include proprietary or confidential information. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

Technical abstracts should be written using the outline below. Abstracts of all funded research projects will be posted on the CDMRP website (http://cdmrp.army.mil); therefore, proprietary or confidential information should not be included.

- **Background:** Present the ideas and rationale behind the proposed clinical trial.
- **Objective/Hypothesis:** State the objective/hypothesis to be tested.
- Specific Aims: State the specific aims of the study.
- **Study Design:** Briefly describe the study design, including appropriate controls.
- **Impact:** Summarize how the proposed project is relevant to and will have an impact on the outcomes of individuals with ASD, their families/caregivers, and/or the understanding of ASD. Describe the impact on the specified population, if applicable.
- **Translatability:** Describe how the project is expected to translate promising research findings into a clinical trial for novel interventions for ASD.
- 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.
 - Identify the FY20 ARP Clinical Translational Research Award Area(s) of Interest addressed in the proposed research, if applicable, or a critical problem or question in ASD to be addressed by the proposed research project.
 - Explain the impact that the proposed research project's results might have on the field of ASD research. Describe the impact, in the short or long term, on individuals with ASD, their families/caregivers, and/or the understanding of ASD.
 - Briefly describe how the research results will be translated into clinical applications.
- Attachment 5: Statement of Work (three-page limit): Upload as "SOW.pdf". The suggested Statement of Work (SOW) format and examples specific to different types of research projects are available on the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm). For the Clinical Translational Research Award mechanism, use the SOW format example titled, "SOW for Clinical Research (Including Trials, Special Populations)." 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.
- If applicable, indicate timelines required for regulatory approvals relevant to human subjects research (e.g., IND and IDE applications) by the FDA or other Government agency.
- Attachment 6: Impact Statement (one-page limit): Upload as "Impact.pdf".

 Describe how the proposed research addresses one or more of the FY20 ARP Clinical Translational Research Award Areas of Interest or a critical problem or question in ASD. Describe the potential impact of the proposed clinical research on the outcomes of individuals with ASD. Describe the short-term impact by detailing the anticipated outcomes that will be directly attributed to the results of the proposed study. Describe the long-term impact by explaining 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. Describe how the intervention or clinical research represents an improvement over currently available interventions and/or standards of care.
- Attachment 7: Innovation Statement (one-page limit): Upload as "Innovation.pdf". Summarize how the proposed research is innovative. State how the research challenges existing paradigms or provides new paradigms, technologies, evidence-based diagnoses, and/or applications for ASD. Investigating the next logical step or an incremental advancement on published data is not considered innovative.
- Attachment 8: Outcomes Statement (four-page limit): Upload as "Outcomes.pdf". Provide ASD or other developmental disorder(s) research outcomes of the PI based on the outline below:
 - Past and current ASD or other developmental disorders research support from both
 Federal and non-Federal sources (as applicable) from the past 5 years.
 - Any honoraria, awards, or other distinctions received for work in ASD or other developmental disorders research from the past 5 years.
 - Any patents or other accomplishments in ASD or other developmental disorders research from the past 5 years.
- Attachment 9: Translatability Statement (one-page limit): Upload as "Translatability.pdf". Describe how the project is expected to translate promising research findings into a subsequent, larger, clinical trial for novel interventions for ASD.

- Attachment 10: Transition Plan (one-page limit): Upload as "Transition.pdf". Provide information on the methods and strategies proposed to move the product to the next level of clinical research or use after successful completion of the award. The transition plan may include the components listed below:
 - Details of the funding strategy that will be used to bring the outcomes to clinical testing or the next level of clinical trial (e.g., specific potential commercial partners, specific funding opportunities to be applied for).
 - A description of collaborations and other resources that will be used to provide continuity of development.
- Attachment 11: IND/IDE Documentation (no page limit): If submitting multiple documents, start each document on a new page. Combine and upload as a single file named "Regulatory.pdf". Answer the following questions and provide supporting documentation as applicable.
 - State the product/intervention name.

For products/interventions that do not require regulation by the FDA:

 Explain why the product/intervention is exempt from FDA oversight. Provide confirmation that the trial does not require regulation by the FDA in writing from the IRB of record or the FDA. No further information for this attachment is required.

For products that require regulation by the FDA:

- State whether the product is FDA approved, licensed, or cleared, and marketed in the U.S.
- If the product is marketed in the U.S., state the product label indication. State whether the proposed research involves a change to the approved label indication for the route of administration, dosage level, and/or subject population. Indicate whether the proposed research involves a change that increases the risks associated with using the product. State whether the product is being promoted for an off-label use (where promotion involves the sale of a marketed product).
- If the product is not currently FDA approved, licensed, or cleared, state the planned indication/use. Indicate whether the product would be classified as a drug, device, biologic, or combination product. Indicate whether the FDA has confirmed the proposed classification. Identify the regulatory sponsor. Include a signed sponsor commitment letter acknowledging the regulatory sponsor's understanding of all sponsor responsibilities and commitment to oversee execution of the study.
- For the FY20 ARP Clinical Translational Research Award, if an IND or IDE is required, it must be submitted to the FDA within 90 days of the FY20 ARP Clinical Translational Research Award application submission deadline. The IND or IDE should be specific for the investigational product (i.e., not a derivative or alternate

version of the product) and indication to be tested in the proposed clinical trial. Provide the date of submission, application number, and sponsor for any existing FDA applications in place. If there are any existing cross-references in place, provide the application number and associated sponsor. Provide an explanation of the status of the application (e.g., past the critical 30-day period, pending response to questions raised by the FDA, on clinical hold, etc.). Provide a summary of previous meetings with the FDA on development of this product, if appropriate. A copy of the Agency meeting minutes should be included, if available. Provide copies of communications from the FDA relevant to the most recent status of the IND or IDE application.

- If an IND or IDE has already been obtained for the investigational product, provide a copy of the acceptance from the FDA.
- Provide the current status for manufacturing development (e.g., manufacturer's name, Good Manufacturing Practice (GMP)-compliant lots available, status of stability testing, etc.), non-clinical development (e.g., test facility name, status of pivotal Good Laboratory Practice (GLP) toxicology studies to support Phase I testing, etc.), and clinical development (e.g., clinical site name, safety profile, status of any completed or ongoing clinical trials).
- Attachment 12: Representations, if applicable (extramural submissions only): Upload as "RequiredReps.pdf". All extramural applicants must complete and submit the Required Representations template available on eBRAP (https://ebrap.org/eBRAP/public/Program.htm). For more information, see the General Application Instructions, Appendix 5, Section B, Representations.
- Attachment 13: Suggested Collaborating DoD Military Facility Budget Format, if applicable: Upload as "MFBudget.pdf". If a military facility (Military Health System facility, research laboratory, medical treatment facility, dental treatment facility, or a DoD activity embedded with a civilian medical center) will be a collaborator in performance of the project, complete a separate budget, using "Suggested Collaborating DoD Military Facility Budget Format," available for download on the eBRAP "Funding Opportunities & Forms" web page https://ebrap.org/eBRAP/public/Program.htm), including a budget justification, for each military facility as instructed. The costs per year should be included on the Grants.gov Research & Related Budget Form under subaward costs. Refer to the General Application Instructions, Section III.A.8, for detailed information.

Extramural and Intramural Applications

To evaluate compliance with Title IX of the Education Amendments of 1972 (20 USC 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.

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

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.
- o **Intramural DoD Collaborator(s):** Complete the "Suggested Collaborating DoD Military Facility Budget Format" and upload to Grants.gov attachment form as Attachment 13 (Refer to the General Application Instructions, Section IV.A.4, for detailed information.) Each Intramural DoD Collaborator should include costs per year on the Grants.gov Research & Related Budget Form under subaward costs.

II.D.3. 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.

Announcement of Transition to SAM-Generated Unique Entity Identifier (UEI): Through December 2020, a transition from DUNS to the SAM-generated UEI will occur. Refer to the General Application Instructions, Section III.1, DUNS Number, for more information on the transition and timing.

II.D.4. Submission Dates and Times

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

Applicant Verification of Full Application Submission in eBRAP

For Both Extramural and Intramural Applicants: eBRAP allows an organization's representatives and PIs to view and modify the full application submissions associated with them. Following retrieval and processing of the full application, eBRAP will notify the organizational representatives and PI by email to log into eBRAP to review, modify, and verify the full application submission. eBRAP will validate full application files against the specific Program Announcement requirements, and discrepancies will be noted in an email to the PI and in the "Full Application Files" tab in eBRAP. eBRAP does not confirm the accuracy of file content. Application viewing, modification, and verification in eBRAP are strongly recommended, but not required. It is the applicant's responsibility to review all application components and ensure proper ordering as specified in the Program Announcement. If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated

full application package must be submitted prior to the application submission deadline. The Project Narrative and Research & Related Budget Form cannot be changed after the application submission deadline. Other application components may be changed until the end of the application verification period. Verify that subaward budget(s) and budget justification forms are present in eBRAP during the application verification period. If these components are missing, upload them to eBRAP before the end of the application verification period. After the end of the application verification period, the full application cannot be modified.

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

Intramural DoD Submission: After eBRAP has processed the full application, the organizational Resource Manager/Comptroller/Task Area Manager or equivalent Business Official and 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 **3** years.

The anticipated direct costs budgeted for the entire period of performance will not exceed \$600,000. 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 \$600,000 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 3 years.

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

- Travel in support of multidisciplinary collaborations.
- Costs for one investigator to travel to one scientific/technical meeting per year. The intent of travel costs to scientific/technical meeting is to present project information or disseminate project results from the ARP Clinical Translational Research Award.

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

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

II.D.6. Other Submission Requirements

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

II.E. Application Review Information

II.E.1. Criteria

II.E.1.a. Peer Review

To determine technical merit, all applications will be evaluated according to the following **scored** criteria, of which scientific merit is the most important criterion, followed by all other listed criteria, which are of equal importance:

Note that high clinical impact does not compensate for deficiencies in scientific merit.

• Scientific Merit

- How well the scientific rationale for testing the intervention/clinical research is supported by the preliminary data, critical review and analysis of the literature, and/or laboratory and/or preclinical evidence.
- How well the specific aims, hypotheses or objectives, experimental design, methods, data collection procedures, and analyses are designed to clearly answer the clinical objective, including selection of an appropriate control condition(s) for comparison.
- To what degree the statistical plan and the rationale for the statistical methodology, including sample size projections, are adequate for the study proposed.

• Clinical Strategy

- o If applicable, whether the proposed clinical trial has sound rationale and methodology, and whether a description of the type of clinical trial to be performed (e.g., prospective, randomized, controlled) is provided.
- To what extent the human subject population is described as being appropriate for the study and whether there is clear access to the designated population.
- How well the recruitment plan and inclusion/exclusion criteria will support achieving the objective.
- Whether the proposed intervention is feasible and endpoints are rational.
- How well the applicant acknowledges potential problems and addresses alternative approaches.
- Whether a member of the study team holds the IND/IDE for the indication proposed or whether the timeline proposed for obtaining the IND/IDE is appropriate (if applicable).

Clinical Impact

Assuming the objectives/goals of the proposed research project are realized:

- Whether the aims of the project, if achieved, are likely to have a significant clinical impact on individuals with ASD.
- How the potential outcomes of the proposed study will provide/improve short-term benefits for individuals.
- How significantly the long-term benefits for implementation of the intervention may impact patient care and/or quality of life.
- How the project will translate promising, well-founded research findings into a clinical trial for a novel ASD intervention.
- How well the proposed study addresses one or more of the FY20 ARP Clinical Translational Research Award Areas of Interest or a critical problem or question in ASD.

Innovation

- To what extent the proposed research, if successful, will challenge existing paradigms or provide new paradigms, technologies, evidence-based diagnoses, and/or applications for ASD.
- o To what degree the proposed research represents more than a logical extension and/or incremental advance upon published data.

Ethical Considerations

- How well the evidence shows that the intervention is consistent with sound research design and, when appropriate, that the intervention is already in use.
- To what degree privacy issues are appropriately considered.
- To what degree the process for seeking informed consent is appropriate and whether safeguards are in place for vulnerable populations.

Personnel

- 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 clinical
 studies).
- To what extent the levels of effort by the PI and other key personnel are appropriate for successful conduct of the proposed research.

• Transition Plan

- Whether the identified next phase of development (e.g., clinical trials, commercialization, and/or delivery to the civilian or military market) is realistic.
- Whether the funding strategy described to bring the intervention/clinical research to the next level of development (e.g., specific industry partners, specific funding opportunities to be applied for) is reasonable and realistic.

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

• Environment

- Whether the scientific environment is appropriate for the proposed research.
- Whether the research requirements are supported by the availability of and accessibility to facilities and resources.
- Whether there is evidence for appropriate institutional commitment from each participating institution.
- o If applicable, to what degree the intellectual and material property plan is appropriate.

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.

• 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 DHP and **FY20 ARP**, as evidenced by the following:
 - Adherence to the intent of the award mechanism
 - o Program portfolio balance
 - Programmatic relevance to the FY20 ARP Clinical Translational Research Award Areas of Interest or a critical problem or question in ASD
 - 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, USAMRDC, 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 Section II.E.1.b., Programmatic Review.* Additional information about the two-tier process used by the CDMRP can be found at https://cdmrp.army.mil/about/2tierRevProcess. An information paper describing the funding recommendations and review process for the award mechanisms for the ARP will be provided to the PI and posted on the CDMRP website.

All CDMRP review processes are conducted confidentially to maintain the integrity of the merit-based selection process. Panel members sign a statement declaring that application and evaluation information will not be disclosed outside the panel. Violations of confidentiality can result in the dissolving of a panel(s) and other corrective actions. In addition, personnel at the applicant or collaborating organizations are prohibited from contacting persons involved in the review and approval process to gain protected evaluation information or to influence the evaluation process. Violations of these prohibitions will result in the administrative withdrawal of the organization's application. Violations by panel members or applicants that compromise

the confidentiality of the review and approval process may also result in suspension or debarment from Federal awards. Furthermore, the unauthorized disclosure of confidential information of one party to another third party is a crime in accordance with 18 USC 1905.

II.E.3. Integrity and Performance Information

Prior to making an assistance agreement award where the Federal share is expected to exceed the simplified acquisition threshold, as defined in 2 CFR 200.88, 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 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 FY20 funds are anticipated to be made no later than September 30, 2021. 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.

Pre-Award Costs: An institution of higher education, hospital, or other non-profit organization may, at its own risk and without the Government's prior approval, incur obligations and expenditures to cover costs up to 90 days before the beginning date of the initial budget period of a new award. Refer to the General Application Instructions, Section III.B.

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

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

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

The organizational transfer of an award supporting a clinical trial is strongly discouraged and in most cases will not be allowed. Approval of a transfer request will be on a case-by-case basis at the discretion of the Grants Officer. An organizational transfer of an award will not be allowed in the last year of the (original) period of performance or any extension thereof.

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.

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

II.F.3. Reporting

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

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

Quarterly technical progress reports may be required.

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

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 501c. The Program Announcement numeric version code will match the General Application Instructions version code 501.

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 FY20 ARP 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 FY20 ARP Programmatic Panel members can be found at https://cdmrp.army.mil/arp/panels/panels20.
- 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 FY20, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (https://cdmrp.army.mil/about/2tierRevProcess). Applications that include names of personnel from either of these companies may be administratively withdrawn.
- Personnel from applicant or collaborating organizations are found to have contacted persons involved in the review or approval process to gain protected evaluation information or to influence the evaluation process.
- Applications from extramural organizations, including non-DoD Federal agencies, received through eBRAP may be withdrawn.
- Applications submitted by an intramural DoD organization may be withdrawn if the intramural organization cannot coordinate the use of contractual, assistance, or other appropriate agreements to provide funds to extramural collaborators.
- Submission of the same research project to different funding opportunities within the same program and fiscal year.
- The invited application proposes a different research project than that described in the preapplication.

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" Impact Statement: Upload as Attachment 6 with file name "Impact.pdf" Innovation Statement: Upload as Attachment 7 with file name "Innovation.pdf" Outcomes Statement: Upload as Attachment 8 with file name "Outcomes.pdf" Translatability Statement: Upload as Attachment 9 with file name "Translatability.pdf" Translatability.pdf" Transition Plan: Upload as Attachment 10 with file name "Transition.pdf" IND/IDE Documentation: Upload as Attachment 11 with file name "Regulatory.pdf" if applicable Representations (extramural submissions only): Upload as Attachment 12 with file name "RequiredReps.pdf" if applicable Suggested Collaborating DoD Military Facility Budget Format: Upload as Attachment 13 with file name	
Research & Related Personal Data	"MFBudget.pdf" if applicable Complete form as instructed	

Application Components	Action	Completed
	Attach PI Biographical Sketch (Biosketch_LastName.pdf) to the appropriate field	
Research & Related Senior/Key Person Profile (Expanded)	Attach PI Previous/Current/Pending Support (Support_LastName.pdf) to the appropriate field	
	Attach Biographical Sketch (Biosketch_LastName.pdf) for each senior/key person to the appropriate field	
	Attach Previous/Current/Pending (Support_LastName.pdf) for each senior/key person to the appropriate field	
Research & Related Budget	Complete as instructed. Attach Budget	
(extramural submissions	Justification (BudgetJustification.pdf) to the	
only)	appropriate field	
Budget (intramural	Suggested DoD Military Budget Format,	
submissions only)	including justification	
Project/Performance Site	Complete form as instructed	
Location(s) Form	Complete form as instructed	
Research & Related Subaward		
Budget Attachment(s) Form, if	Complete form as instructed	
applicable		
Additional Application Components	Action	Completed
Confidential Letters of Recommendation	Confirm upload to eBRAP	

APPENDIX 1: ACRONYM LIST

ACURO Animal Care and Use Review Office

ARP Autism Research Program

ARRIVE Animal Research: Reporting *In Vivo* Experiments

ASD Autism Spectrum Disorder

CDMRP Congressionally Directed Medical Research Programs

CFR Code of Federal Regulations
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

FDA Food and Drug Administration

FY Fiscal Year

GLP Good Laboratory Practice
GMP Good Manufacturing Practice
HRPO Human Research Protection Office

Thankin Research Fronceston Office

IACUC Institutional Animal Care and Use Committee

IDE Investigational Device Exemption

IND Investigational New Drug
IRB Institutional Review Board

M Million

MIPR Military Interdepartmental Purchase Request
NDA National Institute of Mental Health Data Archive

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

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