## **Program Announcement**

for the

Department of Defense

Defense Health Program

Congressionally Directed Medical Research Programs

# Amyotrophic Lateral Sclerosis Research Program Therapeutic Development Award

Funding Opportunity Number: W81XWH-16-ALSRP-TDA
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 14, 2016
- **Invitation to Submit an Application:** May 2016
- **Application Submission Deadline:** 11:59 p.m. ET, July 21, 2016
- End of Application Verification Period: 5:00 p.m. ET, July 26, 2016
- **Peer Review:** September 2016
- Programmatic Review: November 2016

This Program Announcement/Funding Opportunity is one of two documents with instructions to prepare and submit an application for this funding opportunity. The second document, the General Application Instructions, is available for downloading from Grants.gov.

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#### I. FUNDING OPPORTUNITY DESCRIPTION

#### A. Program Description

Applications to the Fiscal Year 2016 (FY16) Amyotrophic Lateral Sclerosis Research Program (ALSRP) are being solicited for the Defense Health Agency, Research, Development, and Acquisition (DHA RDA) Directorate, by the U.S. Army Medical Research Acquisition Activity (USAMRAA). As directed by the Office of the Assistant Secretary of Defense for Health Affairs (OASD[HA]), the DHA RDA Directorate manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. The managing agent for this Program Announcement/Funding Opportunity is the Congressionally Directed Medical Research Programs (CDMRP). The ALSRP was initiated in 2007 to provide support for research of exceptional scientific merit aimed at the preclinical assessment of therapeutics for amyotrophic lateral sclerosis (ALS). Appropriations for the ALSRP from FY07 through FY15 totaled \$54.4 million (M). The FY16 appropriation is \$7.5M.

The goal of the ALSRP is to fund innovative preclinical research to promote the development of new treatments that may contribute to a cure for ALS.

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

The Therapeutic Development Award supports a wide range of development activities ranging from validation of therapeutic leads to U.S. Food and Drug Administration (FDA) Investigational New Drug (IND) submission. The proposed studies are expected to be empirical in nature and product-driven. Applications supported by this award must begin with lead compounds in hand. Examples of activities that will be supported by this award include:

- Secondary validation of lead compounds obtained from screening or by other means to demonstrate target selectivity and mechanism of action,
- Optimization of potency and pharmacological properties, development of structureactivity maps via synthesis, and testing of derivatives and sister compounds,
- Studies on formulation and stability,
- Development of GMP production methods,
- Collection of data for FDA IND applications, to include compound characterization, absorption, distribution, metabolism, and excretion (ADME) studies, and dose/response and toxicology studies.

In parallel with lead compound validation and development, applicants are strongly encouraged to assess in vivo efficacy or target engagement (measurement of target binding or proximal downstream effects) in a relevant preclinical ALS model(s).

Applications must include **preliminary data** and other supporting information relevant to the phase(s) of the preclinical development, such as the following:

• Background data supporting the putative mechanism of action as a viable therapeutic approach

- An identified bioactive compound or limited group of identified lead molecules with:
  - o Proof of identity and purity
  - Selectivity for the intended target over closely related targets (when the target is known)
- Availability of primary and secondary in vitro bioactivity assays for optimization or structure-activity relationship studies
- Availability of appropriate preclinical animal models of ALS to assess in vivo efficacy or desirable mechanism-specific drug activity at the intended target (target engagement)

Investigators interested in basic research focused on ALS drug discovery are encouraged to apply for the FY16 ALSRP Therapeutic Idea Award (Funding Opportunity Number: W81XWH-16-ALSRP-TIA), which does not require preliminary data (http://cdmrp.army.mil/funding/alsrp.shtml).

Collaborations: The preclinical drug development process may require resources beyond those available at single institutions. Collaborations with other research institutions and partnerships with biotechnology/pharmaceutical industry partnerships are encouraged. Biotechnology or pharmaceutical companies intending to apply for the Therapeutic Development Award are encouraged to leverage their own resources to complement the funding provided by this award. Participating organizations should ensure the success of the collaboration by resolving potential intellectual and material property issues and by removing organizational barriers that might interfere with achieving high levels of cooperation. Applicants with limited ALS experience are strongly encouraged to collaborate with those having substantial expertise in ALS research and/or ALS model systems. Letters confirming/supporting the collaboration are required.

Research Involving Animals: All Department of Defense (DoD)-funded research involving new and ongoing research with animals must be reviewed and approved by the U.S. Army Medical Research and Materiel Command (USAMRMC) Office of Research Protections (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 6, for additional information.

**Standards for Preclinical Study Design:** All projects should adhere to a core set of standards for rigorous study design and reporting to maximize the reproducibility and translational potential of preclinical research. The 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 (<a href="http://www.nature.com/nature/journal/v490/n7419/full/nature11556.html">http://www.nature.com/nature/journal/v490/n7419/full/nature11556.html</a>). Projects that include research on animal models are required to submit Attachment 8, Animal

Research Plan, as part of the application package to describe how these standards will be addressed. 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 <a href="http://www.elsevier.com/">http://www.elsevier.com/</a> data/promis misc/622936arrive guidelines.pdf.

Guidelines for the Use of ALS Animal Models: Many factors must be considered in the design of studies using animal models of ALS. A number of investigators and organizations have published guidelines and recommendations for the design of ALS animal model studies. Applicants are strongly encouraged to become familiar with the concepts presented in the articles listed below and to incorporate recommendations contained therein in their study designs. While most of the recommendations pertain to the SOD1-G93A transgenic mouse model, many general concepts for using animal models for ALS research are also described:

Ludolph AC, Bendotti C, Blaugrund E, et al. 2007. Guidelines for the preclinical in vivo evaluation of pharmacological active drugs for ALS/MND: Report on the 142nd ENMC international workshop. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration* 8(4):217-223. <a href="http://dx.doi.org/10.1080/17482960701292837">http://dx.doi.org/10.1080/17482960701292837</a>

Scott S, Kranz JE, Cole J, et al. 2008. Design, power, and interpretation of studies in the standard murine model of ALS. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration* 9(1):4-15. http://dx.doi.org/10.1080/17482960701856300

Ludolph AC, Bendotti C, Blaugrund E, et al. 2010. Guidelines for preclinical animal research in ALS/MND: A consensus meeting. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration* 11(1-2):38-45. http://dx.doi.org/10.3109/17482960903545334

Research Involving Human Anatomical Substances, Human Subjects, or Human Cadavers: Clinical trials are not permitted under this Program Announcement/Funding Opportunity. This award is intended for preclinical studies. The use of human substances and specimens is restricted to existing pathological or diagnostic samples and specimens. 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 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. Refer to the General Application Instructions, Appendix 6, and the Human Subject Resource Document available on the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm) for additional information.

The CDMRP intends that information, data, and research resources generated under awards funded by this Program Announcement/Funding Opportunity 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 4, Section K.

#### C. Eligibility Information

- Independent investigators at all academic levels (or equivalent) are eligible to submit applications.
- Cost sharing/matching is not an eligibility requirement.
- Eligible investigators must apply through an organization. Organizations eligible to apply include Federal agencies, national, international, for-profit, nonprofit, public, and private organizations.
- Applications with intramural (DoD) investigators named as the PI may either be submitted as an "Intramural Submission" by the intramural organization or as an "Extramural Submission" through an extramural (non-DoD) organization (e.g., non-profit foundation). An intramural investigator is defined as a DoD military or civilian employee working within a DoD laboratory or medical treatment facility, or working in a DoD activity embedded within a civilian medical center. Submissions from intramural (DoD) organizations are allowed and encouraged for this Program Announcement/Funding Opportunity. Applicants submitting through their intramural organizations are reminded to coordinate receipt and commitment of funds through their respective resource managers. 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.
- Refer to the General Application Instructions, Appendix 1, for general eligibility information.

#### D. Funding

- The maximum period of performance is 2 years.
- The anticipated direct costs budgeted for the entire period of performance will not exceed \$1,000,000. Indirect costs are to be budgeted in accordance with the organization's negotiated rate. No budget will be approved by the Government exceeding \$1,000,000 direct costs or using an indirect rate exceeding the organization's negotiated rate.
- All direct and indirect costs of any subaward (subgrant or subcontract) must be included in the total direct costs of the primary award.
- The applicant may request the entire maximum funding amount for a project that may have a period of performance less than the maximum 2 years.

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

- Salary
- Research supplies
- Equipment

- Consultation with scientific and/or technical experts (e.g., statisticians, editors)
- Travel between collaborating organizations
- Travel costs for up to 2 investigators to travel to 2 scientific/technical meetings per year

Awards to extramural organizations will consist solely of assistance agreements (Cooperative Agreements and Grants). Awards to intramural (DoD) agencies and other Federal agencies may be managed through a direct fund transfer (e.g., the Military Interdepartmental Purchase Request [MIPR] or Funding Authorization Document [FAD] process). Direct transfer of funds from the recipient to a DoD agency is not allowed except under very limited circumstances. Refer to the General Application Instructions, Section II.C.4., 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 Section II.C.4. of the General Application Instructions.

The CDMRP expects to allot approximately \$3.2M of the \$7.5M FY16 ALSRP appropriation(s) to fund approximately 2 Therapeutic Development Award applications, depending on the quality and number of applications received. Funding of applications received in response to this Program Announcement/Funding Opportunity is contingent upon the availability of Federal funds for this program.

#### II. 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).

Submission is a two-step process requiring both (1) pre-application submission through the electronic Biomedical Research Application Portal (eBRAP) (<a href="https://eBRAP.org/">https://eBRAP.org/</a>) and (2) application submission through Grants.gov (<a href="http://www.grants.gov/">http://www.grants.gov/</a>). Refer to the General Application Instructions, Section II.A., for registration and submission requirements for eBRAP and Grants.gov.

The pre-application and application submission process should be started early to avoid missing deadlines. There are no grace periods. Federal applicants must be familiar with Grants.gov requirements, including the need for an active System for Award Management (SAM) registration and a Data Universal Numbering System (DUNS) number. Refer to Appendix 3 of the General Application Instructions for further information regarding Grants.gov requirements.

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. A key feature of eBRAP is the ability of an organization's representatives and PIs to view and modify the Grants.gov application submissions associated with them. eBRAP will validate Grants.gov application files against the specific Program Announcement/Funding Opportunity 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/Funding Opportunity.

The application title, eBRAP log number, and all information for the PI, Business Official(s), performing organization, and contracting organization must be consistent for the entire preapplication and application submission process. Inconsistencies may delay application processing and limit 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 deadline.

Application viewing, modification, and verification in eBRAP is strongly recommended, but not required. *The Project Narrative and Budget 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 <u>application verification period</u>. After the end of the application verification period, the full application cannot be modified.

#### A. Where to Obtain the Grants.gov Application Package

To obtain the Grants.gov application package, including all required forms, perform a basic search using the Funding Opportunity Number W81XWH-16- ALSRP-TDA in Grants.gov (http://www.grants.gov/).

#### **B.** Pre-Application Submission Content

The pre-application process should be started early to avoid missing deadlines. There are no grace periods. During the pre-application process, each submission is assigned a unique log number by eBRAP. This unique eBRAP log number will be needed during the application process on Grants.gov.

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

PIs and organizations 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 <a href="help@eBRAP.org">help@eBRAP.org</a> or 301-682-5507.

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

#### • 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 (R&R) Form). The Business Official must either be 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 (R&R) Form), and click on "Add Organizations to this Pre-application." The organization(s) must either be selected from the eBRAP drop-down list or invited in order for the pre-application to be submitted.
- o 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.
- <u>FY16 ALSRP Programmatic Panel members</u> should not be involved in any preapplication or application. For questions related to Programmatic Panel members and pre-applications or applications, refer to <u>Section IV.C.</u>, <u>Withdrawal</u>, or contact the CDMRP Help Desk at <u>help@eBRAP.org</u> or 301-682-5507.
- 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 application preparation, research, or other duties for submitted applications. For FY16, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (<a href="http://cdmrp.army.mil/about/2tierRevProcess.shtml">http://cdmrp.army.mil/about/2tierRevProcess.shtml</a>). Applications that include names of personnel from either of these companies will be administratively withdrawn unless plans to manage Conflicts of Interest (COIs) are provided and deemed appropriate by the Government. Refer to the General Application Instructions, Appendix 1, for detailed information.

#### • 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). Refer to Appendix 1, Section C of the General Application Instructions for further information regarding COIs.

#### • 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 (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 Strategy and Objectives: Concisely state the project's objectives and specific aims. Identify the specific lead molecule(s) (or limited group of specific lead compounds) on which the proposed development work will be based. Briefly describe the putative therapeutic mechanism of action and summarize existing data demonstrating biological activity. Describe how the action of drug candidates on a specific mechanistic target(s) will be discerned and/or how clinical progression will be determined. Describe the outcome(s) of the proposed project and potential for FDA IND submission.
- **Impact:** Describe how the project will make an important contribution to ALS therapeutic development. Describe in general terms how the outcomes of the project, if successful, will be translated to the clinic and made available to ALS patients.
- **Personnel:** Briefly state the qualifications of the PI, collaborators (if applicable), and other key personnel to perform the described research 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:

- o 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, 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 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 ALSRP, pre-applications will be screened based on the following criteria:

- Research Strategy and Objectives: How well the scientific rationale supports the project objectives, specific aims, and feasibility. How well the proposed research adheres to the intent of the award mechanism. Whether the pre-application identifies a specific lead compound (or limited group of specific lead compounds). To what extent the preliminary data supports the idea that the candidate compound(s) represents a potential, viable therapeutic against ALS.
- o **Impact:** Whether the project will make an important contribution to development of clinical therapeutics for ALS. Whether the general steps for clinical translation of the projected outcomes of the project are adequately described.
- Personnel: How appropriate the qualifications of the PI, collaborators (if applicable), and other key personnel are for performing 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 on the <a href="title-page">title-page</a> of this Program Announcement/Funding Opportunity. Invitations to submit a full application are based on the Pre-Application Screening Criteria as published above.

The application process should be started early on Grants.gov to avoid missing deadlines. There are no grace periods. Verify the status of your organization's Entity registration in the SAM well in advance of the application submission deadline. Allow 3 to 4 weeks to complete the entire SAM registration process. Refer to the General Application Instructions, Section II, for additional information.

#### C. Full Application Submission Content

Full applications will not be accepted unless the PI has received notification of invitation.

All contributors and administrators to the application must use matching compatible versions of Adobe software when editing and preparing application components. The use of different software versions will result in corruption of the submitted file. See Section II.C. of the General Application Instructions for details on compatible Adobe software.

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 Grants.gov application package for this Program Announcement/Funding Opportunity. The Grants.gov application package is submitted by the Authorized Organizational Representative through the Grants.gov portal (http://www.grants.gov/).

Note: The Project Narrative and Budget Form cannot be changed after the application submission deadline.

If either the Project Narrative or the budget fails eBRAP validation or if the Project Narrative or Budget Form 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*.

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

**Grants.gov application package components:** For the Therapeutic Development Award, the Grants.gov application package includes the following components (refer to the General Application Instructions, Section II.C., for additional information on application submission):

**1. SF424** (**R&R**) **Application for Federal Assistance Form:** Refer to the General Application Instructions, Section II.C., for detailed information.

#### 2. Attachments Form

Each attachment to the Grants.gov application forms must be uploaded as an individual PDF file in accordance with the formatting guidelines listed in Appendix 2 of the General Application Instructions. For all attachments, ensure that the file names are consistent with the guidance. Grants.gov will reject attachments with file names longer than 50 characters or incorrect file names that contain characters other than the following: A-Z, a-z, 0-9, underscore, hyphen, space, and period. In addition, Grants.gov has file size limits that may apply in some circumstances. Individual attachments may not exceed 20 MB and the file size for the entire Grants.gov application package may not exceed 200 MB.

• Attachment 1: Project Narrative (twenty-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, etc.) 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. The Project Narrative must include preliminary data relevant to the phase(s) of the preclinical development process addressed by the proposed research.

- **Background:** Provide preliminary data relevant to the phase(s) of the preclinical development as required, such as:
  - Background data supporting the putative mechanism of action as a viable therapeutic approach;
  - The chemical (or biological) identities of the lead molecules(s) or limited group of specific lead compounds;
  - Proof of identity and purity of the lead(s) (For small molecules, typically >95% by NMR, LC-MS, melting point, etc., with no single impurity >0.5%.
     For biologics, often by HPLC, LC-MS, immunochemistry, nucleotide or amino acid sequence analysis, etc.);
  - In vitro biological activity and selectivity for the intended target over closely related targets (when the target is known);
  - A description of preclinical animal model(s) that can be used to assess in vivo efficacy or desirable mechanism-specific drug activity at the intended target (target engagement).
- **Hypothesis or Objective:** State the hypothesis to be tested or the objective to be reached.
- **Specific Aims:** Concisely explain the project's specific aims to be funded by this award.
- Research Strategy: Describe the study design, methods, models and analyses, including appropriate controls and statistical analyses, in sufficient detail for assessment of the application. Explain how this research strategy will meet the research goals and milestones. Describe the statistical plan including power analysis, as appropriate, for the research proposed. Address potential pitfalls and problem areas and present alternative methods and approaches. Provide a well-developed, well-integrated, and detailed research plan that supports the translational feasibility and promise of the approach.
- Attachment 2: Supporting Documentation. Start each document on a new page. Combine and upload as a single file named "Support.pdf." If documents are scanned to pdf, the lowest resolution (100 to 150 dpi) should be used. There are no page limits for any of these components unless otherwise noted. Include only those components described below; inclusion of items not requested 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 publications 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/Funding Opportunity, 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.

#### Intellectual Property

- Background and Proprietary Information: All software and data first produced under the award are subject to a Federal purpose license. Therefore, it is important that you disclose/identify any Intellectual Property (software, data, patents, etc.) that will be used in performance of the project or provide a statement that none will be used. If applicable, state and identify the proprietary information that will be provided to the Government and indicate whether the applicant will require a waiver of the Federal purpose license. A term of the award requires the recipient to grant to the Government all necessary and appropriate licenses, which could include licenses to background and proprietary information that have been developed at private expense. Refer to the Code of Federal Regulations, Title 2, Part 200.315 (2 CFR 200.315).
- 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 4, 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.

Of particular importance, programmatic reviewers typically do not have access to the full application and therefore rely on the technical abstract for appropriate description of the project's key aspects. Therefore, clarity and completeness within the space limits of the technical abstract are highly important.

#### Use the outline below:

- Background: Present the ideas and reasoning behind the proposed work.
   Explain the rationale for expecting the proposed therapeutic approach to be successful.
- Product: Describe the product to be developed.
- Objective/Hypothesis: State the objectives/hypothesis(es) to be tested. Provide evidence or rationale that supports the objectives/hypothesis(es).
- Specific Aims: State the specific aims of the study.
- o Study Design: Briefly describe the study design including appropriate controls.
- Impact: Summarize briefly how the proposed project will impact the development of therapeutics for ALS.
- 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.

Do not duplicate the technical abstract. Provide background information necessary for readers without scientific or medical training to readily understand the rationale and feasibility of the proposed research project. It should also clearly describe the scientific objective the project is designed to achieve.

Describe the ultimate applicability of the research.

- What type of ALS patients will it help and how will it help them?
- What are the potential clinical applications, benefits, and risks?
- What is the projected time it may take to achieve a patient-related outcome?
- What are the likely contributions of this study in advancing the development of therapeutics for ALS?
- Attachment 5: Statement of Work (SOW) (three-page limit): Upload as "SOW.pdf." The suggested SOW format and examples specific to different types of research projects are available on the eBRAP "Funding Opportunities & Forms" web page (<a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>). For the Therapeutic Development Award mechanism, use the SOW format example titled "SOW for

Advanced Tech Development Research." The SOW must be in PDF format prior to attaching. Refer to the General Application Instructions, Section II.C.2., for detailed guidance on creating the SOW.

- Attachment 6: Impact Statement (one-page limit): Upload as "Impact.pdf." Explain how the expected short-term and long-term outcomes of the study will make an important contribution to ALS therapeutic development. Describe how the proposed research, if successful, will contribute to a pathway toward making a clinical impact for individuals with, or at risk for, ALS, even if clinical impact is not an immediate outcome.
- Attachment 7: Transition Plan (three-page limit): Upload as "Transition.pdf." Describe/discuss the methods and strategies proposed to move the technology or Knowledge Product to the next phase of development (clinical trials, commercialization, and/or delivery to the civilian or military market) after successful completion of the award. The post-award transition plan should include the components listed below.
  - The development and/or commercialization strategy.
  - Details of the funding strategy to transition to the next level of development and/or commercialization (e.g., partners, internal/external funding opportunities to be applied for).
  - For Knowledge Products, a description of collaborations and other resources that will be used to provide continuity of development including proposed development or modification of clinical practice guidelines (CPGs) and recommendations, provider training materials, patient brochures, and other clinical support tools, scientific journal publications, models, simulations, and applications. A "Knowledge Product" is a non-materiel product that addresses an identified need, topic area, or capability gap, is based on current evidence and research, aims to transition into medical practice, training, tools, or to support materiel solutions (systems to develop, acquire, provide, and sustain medical solutions and capabilities), and educates or impacts behavior throughout the continuum of care, including primary prevention of negative outcomes.
  - A schedule and milestones for transitioning the technology or Knowledge Product to the next level of development, (next-phase clinical trials, transition to industry, delivery to the military or civilian market, incorporation into clinical practice, or approval by the FDA). Include identification of the FDA regulatory strategy (if appropriate).
  - o A risk analysis for cost, schedule, manufacturability, and sustainability.
- Attachment 8: Animal Research Plan (three-page limit), if applicable: Upload as "AnimalPlan.pdf." If the proposed study involves animals, the applicant is required to submit a summary describing the animal research that will be conducted. Applicants should not submit a verbatim replica of the protocol(s) to be submitted to the IACUC as the Animal Research Plan. The Animal Research Plan

should take into account the above-referenced "Guidelines for the use of ALS Animal Models" (see <u>Section B., Award Information</u>) and address the following points for each proposed animal study:

- Briefly describe the research objective(s) of the animal study. Explain how and
  why the animal species, strain, and model(s) being used can address the
  scientific objectives and, where appropriate, the study's relevance to human
  biology.
- Summarize the procedures to be conducted. Describe how the study will be controlled.
- Describe the randomization and blinding procedures for the study, and any other measures to be taken to minimize the effects of subjective bias during animal treatment and assessment of results. Provide justification if randomization and/or blinding will not be utilized.
- Provide a sample size estimate for each study arm and the method by which it was derived, including power analysis calculations.
- Describe how data will be handled, including rules for stopping data collection, criteria for inclusion and exclusion of data, how outliers will be defined and handled, statistical methods for data analysis, and identification of the primary endpoint(s).
- Attachment 9: Collaboration Plan (one-page limit), if applicable: Upload as "Collaboration.pdf." If a collaborative project is proposed, the applicant must submit a summary of the structure and intent of the collaboration(s):
  - Describe the specific role(s) of each collaborator in the proposed project.
  - Explain why the work should be done together rather than through isolated efforts.
  - Describe the expertise and resources (physical and process resources or intellectual properties) that each collaborator will bring to the effort and how they are best suited to carry out the proposed research.
- Attachment 10: Collaborating DoD Military Facility Budget Form(s), if applicable: Upload as "MFBudget.pdf." If a Military Facility (military health system facility, research laboratory, 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 Collaborating DoD Military Facility Budget Form, 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 and Related Budget form under subaward costs. Refer to the General Application Instructions, Section II.C.7., for detailed information.

- **3. Research & Related Senior/Key Person Profile (Expanded):** Refer to the General Application Instructions, Section II.C.4., for detailed information.
  - PI Biographical Sketch (five-page limit): Upload as "Biosketch\_LastName.pdf." The suggested biographical sketch format is available on the "Funding Opportunities & Forms" web page (<a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>) in eBRAP. The five-page National Institutes of Health Biographical Sketch may also be used. All biographical sketches should be submitted in the portable document format (pdf) that is not editable.
    - Biographical Sketches should be used to demonstrate background and expertise through education, positions, publications, and previous work accomplished.
  - 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."
    - o Include biographical sketches for collaborators, if applicable.
  - Key Personnel Previous/Current/Pending Support (no page limit): Upload as "Support LastName.pdf."
- **4. Research & Related Budget:** Refer to the General Application Instructions, Section II.C.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.
- **5. Project/Performance Site Location(s) Form:** Refer to the General Application Instructions, Section II.C.5., for detailed information.
- **6. R & R Subaward Budget Attachment(s) Form (if applicable):** Refer to the General Application Instructions, Section II.C.6., for detailed information.

Collaborating DoD Military Facilities Form: A Military Facility collaborating in the performance of the project should be treated as a subaward for budget purposes. However, do not complete the Grants.Gov R & R Subaward Budget Attachment Form; instead, complete the Collaborating DoD Military Facility Budget Form (use Attachment 10, Collaborating DoD Military Facility Budget Form) to show all direct and indirect costs. The costs per year should be included on the Grants.gov Research and Related Budget form under subaward costs. Refer to the General Application Instructions, Section II.C.7., for detailed information.

#### D. Applicant Verification of Grants.gov Submission in eBRAP

Prior to the end of the application verification period, PIs and organizational representatives can review and modify in eBRAP certain components of an application submitted to Grants.gov. Following retrieval and processing of the Grants.gov application, eBRAP will notify the organizational representatives and PI by email to log into eBRAP to review, modify, and verify

the Grants.gov application submission. eBRAP will validate retrieved files against the specific Program Announcement/Funding Opportunity 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/Funding Opportunity. If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated Grants.gov application package must be submitted via Grants.gov as a "Changed/Corrected Application" with the previous Grants.gov Tracking ID prior to the application submission deadline. The Project Narrative and Budget Form cannot be changed after the application submission deadline.

#### E. Submission Dates and Times

All submission dates and times are indicated on the <u>title page</u> of this Program Announcement/ Funding Opportunity. Pre-application and application submissions are required. Failure to meet either of these deadlines will result in submission rejection.

#### F. Other Submission Requirements

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

All extramural applications must be submitted through Grants.gov. Applicant organizations and all subrecipient 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. Refer to the General Application Instructions, Section II.A., for information on Grants.gov registration requirements.

#### III. APPLICATION REVIEW INFORMATION

#### A. 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 of applications against established criteria for determining technical merit. Each application is evaluated for its own merit, independent of other applications. The second tier is a programmatic review that makes recommendations for funding to the DHA RDA Directorate and the OASD(HA), based on technical merit, the relevance to the mission of the DHP and ALSRP, the specific intent of the award mechanism, and to other specified evaluation criteria in the Program Announcement/Funding Opportunity. Programmatic review is a comparison-based process in which applications with scientific and technical merit compete in a common pool. *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 III.B.2, Programmatic Review.* Additional information about the two-tier process used by the CDMRP can be found at <a href="http://cdmrp.army.mil/about/fundingprocess.shtml">http://cdmrp.army.mil/about/fundingprocess.shtml</a>.

All CDMRP review processes are conducted confidentially to maintain the integrity of the merit-based selection process. Panel members sign a statement 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 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 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 Title 18 United States Code 1905.

#### **B.** Application Review Process

**1. Peer Review:** To determine technical merit, all applications will be evaluated according to the following **scored** criteria, which are of **equal importance**:

#### • Research Strategy and Feasibility

- How strongly the background data presented supports the applicant's reasoning that the proposed therapeutic approach is feasible for advanced preclinical development and the extent to which the study is product-driven.
- How well the preliminary data support use of a previously identified bioactive compound or group of lead compounds.
- How well the experimental design, methods, and analyses including statistical analyses support the study outcomes.
- How well the applicant identifies potential problems and addresses alternative approaches.

#### If applicable to the proposed phase of development:

- How appropriate, available, and well-developed the described primary and secondary in vitro bioactivity assays are for optimization or structure-activity relationship studies.
- How appropriate, available, and well-developed the described target engagement and selectivity and assays are for measurement of desirable activity at the intended target, for assessing artifacts, and for assessing the potential for undesirable activities at related but unintended targets.
- How feasible are the outlined chemical synthetic pathways for modification of lead compounds or the formulation of potential delivery systems and whether they are based on rational design.

#### For studies involving animal research:

 How well the animal study (or studies) considers the guidelines for working with ALS animal models and how well it is designed to achieve the objectives, including the relevance of the model and endpoints/outcome measures to be used.  The extent to which the study (or studies) is designed to achieve reproducible and rigorous results, including controls, sample size estimation, blinding, randomization, and data handling.

#### • Impact and Transition Potential

- The extent to which this study might be expected to impact the development of therapeutics for ALS. The application should assess both short-term and long-term impact.
- How the proposed research, if successful, will contribute to a pathway toward making a clinical impact for individuals with, or at risk for, ALS, even if clinical impact is not an immediate outcome.
- Whether the identified next level of development and/or commercialization is realistic.
- Whether the funding strategy described to bring the technology or Knowledge Product to the next level of development (e.g., specific potential industry partners, specific funding opportunities to be applied for) is reasonable and realistic.
- Whether the proposed collaborations and other resources for providing continuity of development, including proposed development or modification of clinical practice guidelines and recommendations, provider training materials, patient brochures, and other clinical support tools, scientific journal publications, models, simulations, and applications are established and/or achievable.
- Whether the schedule and milestones for bringing the technology or Knowledge Product to the next level of development (next-phase clinical trials, transition to industry, delivery to the military or civilian market, incorporation into clinical practice, or approval by the FDA) are achievable.
- Whether the potential risk analysis for cost, schedule, manufacturability, and sustainability is realistic and reasonable.
- O How well the application identifies intellectual property ownership, describes any appropriate intellectual and material property plan among participating organizations (if applicable), and addresses any impact of intellectual property issues on product development and subsequent Government access to products supported by this Program Announcement/Funding Opportunity.
- Whether the applicant has demonstrated that they have access to all intellectual property rights necessary for development and commercialization and evidence that the Government has the ability to access such products or technologies.

#### Personnel

- How appropriate the research team members' backgrounds and expertise are for development of the proposed product and conduct of the proposed research;
- How the levels of effort are appropriate for successful conduct of the proposed work.

#### For research involving collaborations:

- How well each collaborating individual's contribution is described.
- The degree to which the proposed working relationship described in the Collaboration Plan contributes to successful attainment of project objectives.

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

#### • Environment

- The appropriateness of the scientific environment for the proposed research;
- Whether the research requirements are supported adequately by the availability of and accessibility to facilities and resources (including collaborative arrangements).
- The quality and extent of organizational support.

#### Budget

• Whether the budget is appropriate for the proposed research and within the limitations of this Program Announcement/Funding Opportunity.

#### Application Presentation

- To what extent the writing, clarity, and presentation of the application components influence the review.
- **2. 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:
  - a. Ratings and evaluations of the peer reviewers
  - b. Relevance to the mission of the DHP and FY16 ALSRP, as evidenced by the following:
    - Program portfolio composition
    - Adherence to the intent of the award mechanism
    - Relative impact

#### C. Recipient Qualification

For general information on required qualifications for award recipients, refer to the General Application Instructions, Appendix 1.

#### **D.** Application Review Dates

All application review dates and times are indicated on the <u>title page</u> of this Program Announcement/Funding Opportunity.

#### **E.** Notification of Application Review Results

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.

#### IV. ADMINISTRATIVE ACTIONS

After receipt of pre-applications from eBRAP or applications from Grants.gov, the following administrative actions may occur:

#### 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.
- Submission of the same research project to different Funding Opportunities within the same program and fiscal year.

#### 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.

#### C. Withdrawal

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

- An FY16 ALSRP 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 FY16 ALSRP Programmatic Panel members can be found at <a href="http://cdmrp.army.mil/alsrp/panels/panels/6.shtml">http://cdmrp.army.mil/alsrp/panels/panels/6.shtml</a>.
- The application fails to conform to this Program Announcement/Funding Opportunity description to the extent that appropriate review cannot be conducted.

- 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 FY16, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (<a href="http://cdmrp.army.mil/about/2tierRevProcess.shtml">http://cdmrp.army.mil/about/2tierRevProcess.shtml</a>). Applications that include names of personnel from either of these companies will be administratively withdrawn unless plans to manage COIs are provided and deemed appropriate by the Government. Refer to the General Application Instructions, Appendix 1, for detailed information.
- Personnel from applicant or collaborating organizations are found to have contacted persons involved in the review process to gain protected evaluation information or to influence the evaluation process.
- The invited application does not propose the same research project described in the preapplication.
- The application is submitted by a PI who does not meet the eligibility criteria.
- The application is or includes a clinical trial.

#### 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.

#### V. AWARD ADMINISTRATION INFORMATION

#### A. Award Notice

Awards will be made no later than September 30, 2017. Refer to the General Application Instructions, Appendix 4, for additional award administration information.

Any assistance instrument awarded under this Program Announcement/Funding Opportunity will be governed by the award terms and conditions, which conform to DoD's implementation of the Office of Management and Budget (OMB) circulars applicable to financial assistance. Terms and conditions of new awards made after December 26, 2014 may include revisions to reflect DoD implementation of new OMB guidance in the Code of Federal Regulations, Title 2, Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" (2 CFR part 200).

#### **B.** Administrative Requirements

Refer to the General Application Instructions, Appendix 4 for general information regarding administrative requirements.

#### C. National Policy Requirements

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

#### D. Reporting

Refer to the General Application Instructions, Appendix 4, Section H, for general information on reporting requirements.

#### E. Award Transfers

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 4, Section L, for general information on organization or PI changes.

#### VI. VERSION CODES AND AGENCY CONTACTS

# A. Program Announcement/Funding Opportunity and General Application Instructions Version

Questions related to this Program Announcement/Funding Opportunity should refer to the Program name, the Program Announcement/Funding Opportunity name, and the Program Announcement/Funding Opportunity version code [20160210b]. The Program Announcement/Funding Opportunity numeric version code will match the General Applications Instructions version code [20160210].

#### B. CDMRP Help Desk

Questions related to Program Announcement/Funding Opportunity content or submission requirements as well as questions related to the submission of the pre-application 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

#### C. Grants.gov Contact Center

Questions related to 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: <a href="mailto:support@grants.gov">support@grants.gov</a>

Sign up on Grants.gov for "send me change notification emails" by following the link on the Synopsis page for the Program Announcement/Funding Opportunity 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.

## VII. APPLICATION SUBMISSION CHECKLIST

Grants.gov Application Components	Upload Order	Action	Completed
SF424 (R&R) Application for Federal Assistance		Complete form as instructed.	
	1	Project Narrative: Upload as Attachment 1 with file name "ProjectNarrative.pdf."	
	2	Supporting Documentation: Upload as Attachment 2 with file name "Support.pdf."	
	3	Technical Abstract: Upload as Attachment 3 with file name "TechAbs.pdf."	
	4	Lay Abstract: Upload as Attachment 4 with file name "LayAbs.pdf."	
	5	Statement of Work: Upload as Attachment 5 with file name "SOW.pdf."	
Attachments Form	6	Impact Statement: Upload as Attachment 6 with the file name "Impact.pdf."	
	7	Transition Plan: Upload as Attachment 7 with the file name "Transition.pdf."	
	8	Animal Research Plan: Upload as Attachment 8 with file name "AnimalPlan.pdf," if applicable.	
	9	Collaboration Plan: Upload as Attachment 9 with file name "Collaboration.pdf," if applicable.	
	10	Collaborating DoD Military Facility Budget Form(s): Upload as Attachment 10 with file name "MFBudget.pdf," if applicable.	
		Attach PI Biographical Sketch (Biosketch_LastName.pdf) to the appropriate field.	
Research & Related		Attach PI Previous/Current/Pending Support (Support_LastName.pdf) to the appropriate field.	
Senior/Key Person Profile (Expanded)		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 Justification (BudgetJustification.pdf) to the appropriate field.	
Project/Performance Site Location(s) Form		Complete form as instructed.	
R & R Subaward Budget Attachment(s) Form		Complete form as instructed.	