

Program Announcement

Department of Defense Congressionally Directed Medical Research Programs

Tuberous Sclerosis Complex Research Program

Clinical and Translational Research Award

Funding Opportunity Number: W81XWH-09-TSCR-CTRA

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I. FUNDING OPPORTUNITY DESCRIPTION

A. Program Objectives

The Tuberous Sclerosis Complex Research Program (TSCRP) was established in fiscal year 2002 (FY02) to promote innovative research focused on decreasing the clinical impact of tuberous sclerosis complex (TSC). Appropriations for the TSCRP from FY02 through FY08 totaled \$17.5 million (M). The FY09 appropriation is \$6M.

FY09 TSCRP Mission and Goals: The mission of the TSCRP is to encourage innovative research aimed at understanding the pathogenesis of TSC, and to translate these findings to the care of individuals with TSC. Within this context, the TSCRP encourages applications to the FY09 program that address these vital program goals:

- To better understand the molecular mechanisms underlying TSC.
- To better characterize the manifestations of TSC in individual organ systems, including brain, lung, kidney, skin, and heart.
- To promote the translation of new research findings for the diagnosis and treatment of those with TSC.
- To encourage the development of new researchers in TSC and collaborations with other related fields.

TSCRP Research Resources Initiative: Resources developed through TSCRP-funding that are available to the scientific community can be found at <http://cdmrp.army.mil/tscrp/tscresources.htm>. Investigators are urged to leverage and contribute to these resources. For more guidance on data sharing, refer to Application Instructions and General Information, Appendix 5.

B. Award Description

The TSCRP Clinical and Translational Research Award mechanism is being offered for the first time in FY09.

Important aspects of this award mechanism are as follows:

- 1. Preliminary Data:** Preliminary data relevant to the proposed project are required.
- 2. Optional Qualified Collaborator:** The FY09 TSCRP strongly supports collaborative research. Collaborations that bring new perspectives from other disciplines or bring new investigators into the TSC field are strongly encouraged. Collaborations that meet the criteria below will qualify for a higher level of funding as described in Section I.D.

For the application to qualify for the higher level of funding, the Principal Investigator (PI) must submit a Statement of Collaboration that clearly identifies the collaborating investigator and addresses how each of the criteria below are met. Additionally, the collaborator must provide a letter of collaboration describing their involvement in the application. It should be

clear that the success of the project depends on the unique skills and contributions of each partner.

- The collaborator must significantly contribute to the project such that the proposed work could not be accomplished without his/her involvement.
- Either the PI or the Collaborator must have TSC research experience as demonstrated through publications and/or funding history.
- The collaborator must be *at or above* the level of Assistant Professor (or equivalent).
- At least a 10% level of effort is required of the collaborator. Contribution of the collaborator should be reflected in the application's budget.

3. This award may support **either** clinical/translational research studies or clinical trials. Each application may only include **one** of these types of studies. Refer to the Application Instructions and General Information, Appendix 6, for helpful information about distinguishing clinical trials and clinical research.

(a) Clinical/Translational Studies

Clinical/Translational research projects may include, but are not limited to, preclinical studies in animal models and human anatomical substances, correlative studies associated with existing clinical trials and projects that develop clinical endpoints for clinical trials. Developmental pathways for translational research that may be useful for designing translational research studies for support under this mechanism may be found at (<http://www.cancer.gov/aboutnci/trwg/Pathways-to-Clinical-Goals>). These pathways are comprehensive and span the entire translational research continuum.

(b) Clinical Trials

If an application requests support for a clinical trial, the PI is required to submit a clinical protocol in addition to the project narrative by the application receipt deadline. Guidelines for clinical protocol preparation are outlined in Section VI. The protocol will be reviewed separately according to the review criteria outlined in Section V.

Each application should contain only one clinical trial with a distinct study design. Investigational New Drug (IND) or Investigational Device Exemption (IDE) applications should be submitted or approved prior to application submission. If applicable, the Government reserves the right to withdraw funding if IND/IDE approval is not received within 6 months of the award date. PIs must clearly specify in the Clinical Protocol which type of clinical trial is being proposed: Phase 0, Phase I, Phase II, or a combination. For descriptions of each type of clinical trial, please refer to www.fda.gov/cder/guidance/6384dft.htm and <http://www.clinicaltrials.gov>. Refer to the Application Instructions and General Information, Appendix 6, for helpful information about distinguishing clinical trials and clinical research. The proposed clinical trial is expected to begin within 12 months of the award date.

The following are important aspects of submission of a clinical trial:

- Demonstrate availability of, and access to, a suitable patient population that will support a meaningful outcome for the study.
- Describe clearly defined and appropriate endpoints for the proposed clinical trial.
- Clearly articulate the statistical analysis plan.
- Discuss the potential impact of the study results for patients with the specified disease/condition.
- Include a study coordinator(s) who will guide the clinical protocol through Institutional Review Board (IRB), Human Subjects Research Review Board, and other regulatory approval processes, coordinate activities from all sites participating in the trial, and coordinate participant accrual.
- Demonstrate institutional support.

Multi-institutional Clinical Trials: If the proposed clinical trial is multi-institutional, plans for communication and data transfer between the collaborating institutions, as well as how specimens and/or imaging products obtained during the study will be handled, should be included in the appropriate sections of the Clinical Protocol. A separate intellectual and material property plan agreed upon by all participating institutions is also required for multi-institutional clinical trials.

Use of Human Subjects and Human Biological Substances: All Department of Defense (DOD)-funded research involving human subjects and human biological substances must be reviewed and approved by the US Army Medical Research and Materiel Command (USAMRMC) Office of Research Protections (ORP), Human Research Protection Office (HRPO), in addition to local IRBs. The HRPO is mandated to comply with specific laws and directives governing all research involving human subjects that is conducted or supported by the DOD. These laws and directives are rigorous and detailed, and will require information in addition to that supplied to the local review board. Allow a minimum of 6 months for regulatory review and approval processes for studies involving human subjects. Refer to Application Instructions and General Information, Appendix 6, for detailed information.

C. Eligibility

Investigators *at or above* the Assistant Professor level (or equivalent) are eligible to submit applications. Refer to Application Instructions and General Information, Appendix 1, for general eligibility information.

D. Funding

- The maximum period of performance is 3 years.
- The maximum allowable funding for the entire period of performance is **\$750,000** in direct costs (**\$900,000** in direct costs if requesting an optional qualified collaborator).

- Applications requesting the higher level of funding that do not include a qualified collaborator who meets all of the specified criteria will have their budget reduced as appropriate.
- You may propose using the entire maximum direct cost amount for a project that will be less than the maximum period of performance of three years.
- Regardless of the period of performance proposed, you may not exceed the maximum direct cost. In addition to the direct costs, indirect costs may be proposed in accordance with your institution's negotiated rate agreement.

Within the guidelines provided in the Application Instructions and General Information, funds can cover:

- Salary
- Research supplies
- Equipment
- Clinical costs
- Travel between collaborating institutions
- Travel to scientific/technical meetings
- Other direct costs as described in Application Instructions and General Information for Detailed Budget and Justification

The Office of the Congressionally Directed Medical Research Programs (CDMRP) expects to allot approximately \$1.35M of the \$6M FY09 TSCRAP appropriation to fund approximately one Clinical and Translational Research Award application, depending on the quality and number of applications received. Funding of applications received in response to this Program Announcement/Funding Opportunity is contingent on the availability of Federal funds for this program.

E. Award Administration

Quarterly technical progress reports will be required for clinical trials.

The transfer of an award to another institution is strongly discouraged. Approval of a transfer request will be at the discretion of the Grants Officer. Refer to Application Instructions and General Information, Appendix 5, for general award administration information.

II. TIMELINE FOR SUBMISSION AND REVIEW

Proposal submission is a two-step process consisting of (1) pre-application submission and (2) application submission.

Pre-application Submission Deadline:	March 24, 2009
Application Submission Deadline:	April 14, 2009
Scientific Peer Review:	Summer, 2009
Programmatic Review:	Late Summer/Early Fall, 2009

Awards will be made approximately 4 to 6 months after receiving a funding notification letter, but no later than September 30, 2010.

III. SUBMISSION PROCESS

Proposal submission is a two-step process consisting of (1) a pre-application submission through the [CDMRP eReceipt system \(https://cdmrp.org/\)](https://cdmrp.org/), and (2) an application submission through [Grants.gov \(http://www.grants.gov/\)](http://www.grants.gov/).

PIs and organizations identified in the application submitted through Grants.gov should be the same as those identified in the pre-application. If there is a change in PI or organization after submission of the pre-application, the PI must contact the eReceipt help desk at: help@cdmrp.org or 301-682-5507.

The Government reserves the right to reject duplicative applications submitted to different award mechanisms within the same program or to other CDMRP programs.

A. Step 1 – Pre-Application Components and Submission

Pre-application submission is the required first step. The pre-application consists of the components discussed below. All pre-application components must be submitted electronically through the [CDMRP eReceipt system](https://cdmrp.org/) by **5:00 p.m. Eastern time (ET) on the deadline date**. Refer to the Application Instructions and General Information for detailed information.

- Proposal Information
- Proposal Contacts
- Collaborators and Conflicts of Interest (COI)
- Letter of Intent (LOI) Narrative

B. Step 2 – Application Components and Submission

Application submissions will not be accepted unless the pre-application process is completed by the pre-application deadline. Applications must be submitted electronically by the Authorized Organizational Representative (AOR) through Grants.gov (www.grants.gov).

Each application submission must include the completed application package of forms and attachments identified in www.grants.gov for the US Army Medical Research Acquisition Activity (USAMRAA) Program Announcement/Funding Opportunity. In addition to the specific instructions below, please refer to the Application Instructions and General Information for detailed requirements of each component.

The package includes:

1. SF-424 (R&R) Application for Federal Assistance Form

2. Attachments Form

- Attachment 1: Project Narrative (10-page limit)

Describe the proposed project in detail using the outline below. *Applications must include preliminary data relevant to TSC research and the proposed project.*

- **Background:** Present the ideas and reasoning behind the proposed work. Cite relevant literature.
- **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 application.
- **Research Strategy:** Describe the experimental design, methods, and analyses, including appropriate controls, in sufficient detail for analysis. Describe the statistical plan if appropriate for the research proposed. Address potential problem areas and present alternative methods and approaches. If human subjects or human biological samples will be used, include a detailed plan for the recruitment of subjects or the acquisition of samples and statistical plan.
- Attachment 2: Supporting Documentation
 - References Cited
 - Acronyms and Symbol Definitions
 - Facilities & Other Resources
 - Description of Existing Equipment
 - Publications and/or Patent Abstracts (five-document limit)
 - Letters of Institutional Support (two-page limit per letter)
 - If the PI is a practicing clinician, the institution must clearly demonstrate a commitment to the clinician's research.

- Letters of Collaboration (if applicable, two-page limit per letter)
 - If applying for the higher level of funding, **the collaborator** must provide a letter of collaboration describing their involvement in the proposed work. It should be clear that the success of the project depends on the unique skills and contributions of each partner.
- Intellectual and Material Property Plan (if applicable)
- Attachment 3: Technical Abstract (one-page limit)
- Attachment 4: Public Abstract (one-page limit)
- Attachment 5: Statement of Work (SOW, (three-page limit))
- Attachment 6: Detailed Budget and Justification
- Attachment 7: Impact Statement (one-page limit)

Describe the impact of this study on TSC research or patient care. Describe how the expected results of the proposed work will contribute to the goals of decreasing the impact of the disease and advancing methods, concepts, diagnosis, or treatment of the disease for quality of life for patients.

- Attachment 8: Statement of Collaboration (required if requesting higher level of funding)
 - If applying for the higher level of funding, **the PI** must submit a statement identifying the collaborating investigator and addressing all criteria described in Section I.B. It should be clear that the success of the project depends on the unique skills and contributions of each partner.
- Attachment 9: Clinical Protocol (required for clinical trials)
- The Clinical Protocol must include the required components described in Section VI. The protocol is a stand-alone document that will be reviewed separately and should contain all necessary information to facilitate review.
- Attachment 10: Federal Agency Financial Plan (if applicable)
- Attachment 11-15: Subaward Detailed Budget and Justification (if applicable)

3. Research & Related Senior/Key Person Profile (Expanded Form)

- PI Biographical Sketch (four-page limit)
- PI Current/Pending Support
- Key Personnel Biographical Sketches (four-page limit each)
- Key Personnel Current/Pending Support

4. Research & Related Project/Performance Site Location(s) Form

IV. INFORMATION FOR APPLICATION REVIEW

A. Application Review and Selection Overview

All applications are evaluated by scientists, clinicians, and consumer advocates using a two-tier review process. The first tier is a scientific peer review of applications against established criteria for determining scientific merit. The second tier is a programmatic review that compares submissions to each other and recommends proposals for funding based on scientific merit, overall goals of the program, and the specific intent of the award mechanism. Additional information about the two-tier review process used by the CDMRP may be found at <http://cdmrp.army.mil/fundingprocess.htm>.

The peer review and programmatic review processes are conducted confidentially to maintain the integrity of the merit-based selection process. Each tier of review requires panelists to sign a non-disclosure statement attesting that application and evaluation information will not be disclosed outside the panel. Violations of the non-disclosure statement can result in the dissolving of a panel(s) and other corrective actions. Institutional personnel and PIs are prohibited from contacting persons involved in the application 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 institution's application. Violations by panelists or PIs that compromise the confidentiality of the peer review and programmatic review processes may also result in suspension or debarment of their employing institutions from Federal awards. Furthermore, it is a crime for Federal officials to disclose confidential information of one party to another third party (Title 18 United States Code 1905).

The Government reserves the right to review all applications based on one or more of the required attachments or supporting documentation (e.g., Impact Statement).

B. Review Criteria

1. Peer Review: All applications will be evaluated according to the following criteria that are **all of equal importance**:

- **Impact**
 - How the project addresses a critical problem in TSC research or patient care.
 - How the project makes an original or important contribution to advancing basic, clinical, and translational research that will improve outcomes for TSC.
 - The difference the proposed project will make on TSC research or patient care, if successful.
- **Personnel**
 - Whether the applicant meets the eligibility requirements.
 - How the research team's background and expertise are appropriate to accomplish the proposed work.

- How the levels of effort are appropriate for successful conduct of the proposed work.
- Optional Collaborator(s) (if applicable)
 - Whether the collaborators experience, expertise, and involvement in the study significantly contributes to the project such that the proposed work could not be accomplished without their involvement.
 - Whether the collaborator meets the criteria for an optional collaborator as verified by the PI Statement of Collaboration (i.e., the collaborator possesses appropriate TSC research experience if the PI does not; the collaborator is at or above the level of Assistant Professor (or equivalent); the collaborator is contributing at least 10% level of effort).
- **Research Strategy and Feasibility (Preliminary data are required)**
 - How the scientific rationale supports the project and its feasibility, as demonstrated by a critical review and analysis of the literature, the presentation of preliminary data, and/or logical reasoning.
 - How well the hypotheses or objectives, aims, experimental design, methods, and analyses are developed and integrated into the project.
 - How well the PI acknowledges potential problems and addresses alternative approaches.

The following criteria will not be individually scored, but may impact the overall evaluation of the application:

- **Environment**
 - How the scientific environment is appropriate for the proposed research.
 - How the research requirements are supported by the availability of and accessibility to facilities and resources (including collaborative arrangements).
 - How the quality and extent of institutional support are appropriate for the proposed research.
- **Budget**
 - Whether the budget is appropriate for the proposed research, and whether this is within the limitations of the award mechanism.
- **Application Presentation**
 - How the writing and components of the application influenced the review.

2. Programmatic Review: The following criteria are used by programmatic reviewers to make funding recommendations that maintain the program's broad portfolio:

- Ratings and evaluations of the peer reviewers,
- Program portfolio balance,
- Programmatic relevance,

- Relative innovation and impact, and
- Adherence to the intent of the award mechanism.

Scientifically sound proposals that best fulfill the above criteria and most effectively address the unique focus and goals of the program will be identified by Integration Panel (IP) members and recommended for funding to the Commanding General, US Army Medical Research and Materiel Command. The highest scoring applications from the first tier of review are not automatically recommended for funding. All applications are carefully considered to ensure that the funds available are allocated to those proposals that best fulfill the goals and objectives of the program.

Investigators are urged to view previously TSCRP-funded proposals at <http://cdmrp.army.mil/search.aspx?program=TSCRP> to aid in the development of applications that represent novel areas of research, as portfolio balance is an important consideration at programmatic review to ensure that gaps in the research are adequately addressed.

V. CLINICAL PROTOCOL REVIEW (APPLICABLE TO CLINICAL TRIALS ONLY)

A. Review Criteria

All clinical trials will be evaluated according to the following criteria, which are **all of equal importance**:

- **Clinical Impact**
 - How the results of the proposed clinical trial will affect the magnitude and scope of potential clinical applications (e.g. detection, diagnosis, treatment, management, and/or quality of life).
- **Ethics**
 - How the risks to subjects are minimized, and evidence of a monitoring plan which is appropriate with the level of risk.
 - Evidence that procedures are consistent with sound research design and when appropriate, procedures used are already in use for diagnostic or treatment purposes.
 - Selection of subjects is equitable, informed consent is sought and appropriately documented, appropriate safeguards are in place for vulnerable populations.
- **Intervention, Drug, or Device**
 - Whether the intervention, drug, or device to be tested is available and appropriate for the proposed clinical trial.
 - Whether there is documentation that an IND/IDE application has been submitted (if applicable).

- **Patient Recruitment and Accrual**
 - How the recruitment, informed consent, screening and retention processes for volunteers will be conducted to meet the needs of the proposed clinical trial.
 - Evidence of a contingency plan to resolve potential delays (e.g., slow accrual, patient dropout) in clinical trial completion.
 - How the protocol addresses the availability of volunteers for the clinical trial, the prospect of their participation, and the consideration of likelihood of volunteer attrition.
- **Personnel**
 - How the clinical study team's background and expertise are appropriate to accomplish the proposed work (i.e., statistical expertise, expertise in the disease, and clinical studies).
 - How the levels of effort of the clinical team are appropriate for successful conduct of the proposed trial.
 - Evidence that a study coordinator with appropriate expertise is or will be identified at an appropriate level of effort.
- **Statistical Plan (as appropriate to phase of study)**
 - How the statistical plan, including sample size projections and power analysis, is adequate for the study and all proposed correlative studies.
- **Study Design**
 - How the scientific rationale and preliminary data, including critical review and analysis of the literature, and laboratory and preclinical evidence support the rationale for testing the intervention.
 - How the study aims, hypotheses or objectives, experimental design, methods, data collection procedures, and analyses are designed to clearly answer an important clinical objective.
 - How the logistical aspects of the proposed clinical trial (e.g., communication plan, data transfer and management, and standardization of procedures) meet the needs of the proposed clinical trial.
 - How the inclusion, exclusion, and randomization criteria meet the needs of the proposed clinical trial.

The following criteria will not be individually scored, but may impact the overall evaluation of the application:

- **Environment**
 - How the evidence indicates an appropriate scientific environment, clinical setting, and the accessibility of institutional resources to support the clinical trial at each participating center or institution (including collaborative arrangements).

- The evidence for appropriate institutional commitment from each participating institution.
- If applicable, how the intellectual and material property plan that is agreed upon by each participating institution is appropriate for the proposed clinical trial.
- **Budget**
 - Whether the budget is appropriate for the proposed clinical trial, and whether this is within the limitations of the award mechanism.
- **Application Presentation**
 - How the writing and components of the application influenced the review.

VI. CLINICAL PROTOCOL AND SUPPORTING CLINICAL DOCUMENTATION

A. Required Elements of the Protocol

Please note that the protocol should address the following elements:

- Trial design
- Intervention, drug, or device to be tested
- Feasibility of the study
- The statistical plan
- The personnel involved in the study
- Ethics and/or regulatory issues

Protocol elements:

1. Protocol Title

2. Phase: Designate the phase of the trial (i.e., phase 0, I, II, or a combination of phases).

3. Principal Investigator (PI)/Study Staff: List the complete name, address, telephone and fax number, and email address of the PI. List the names of all key study personnel who will have significant involvement in the study; include their professional credentials (e.g., M.D. or R.N.), highest degree(s), job title, and employing institution.

4. Study Location(s): List all centers, clinics, or laboratories where the study is to be conducted. Provide the Federal-wide or DOD Assurance number for each institution engaged in study. Include the name, degree(s), title, employing institution, and complete address of the investigator(s) for each study site.

5. Time Required to Complete the Study: State the month and year of the expected start and completion times.

6. Background (Suggested Limit: 10 pages): Include a literature review that describes in detail the rationale for conduct of the study. Include descriptions of any preliminary studies and findings that led to the development of the protocol. The background section should clearly support the choice of study variables and explain the basis for the study questions and/or study hypotheses. This section should establish the relevance of the study and explain the applicability of the proposed findings.

Note: If the protocol was initiated using other funding prior to obtaining the DOD funding, explain the history and evolution of the protocol and declare the source of prior funding. Specifically identify the portions of the study that will be supported with DOD funds. For ongoing protocols, HRPO approval is required prior to initiation of any human subjects research activities supported by the USAMRMC.

7. Objectives/Specific Aims/Study Questions: Provide a description of the purpose and objectives of the study with detailed specific aims and/or study questions/hypotheses.

8. Study Design: Describe the type of study to be performed (e.g., prospective, retrospective, randomized, controlled, etc.) and outline the proposed methodology in sufficient detail to show a clear course of action.

- Define the study variables and describe how they will be measured.
- Describe the methods that will be used to obtain a sample of volunteers from the accessible population (i.e., convenience, simple random, stratified random).
- If applicable, describe the subject-to-group assignment process (e.g., randomization, block randomization, stratified randomization, age-matched controls, alternating group, or other procedures).
- Explain the specific actions to accomplish the group assignment (e.g., computer assignment, use of table of random numbers).
- Describe the reliability and validity of psychometric measures, if applicable.

9. Study Population: Describe the target population (to whom the study findings will be generalized) and the nature, approximate number, and pertinent demographic characteristics of the accessible population at the study site (population from which the sample will be recruited/drawn). Demonstrate that the research team has access to the proposed study population. Furthermore, discuss past efforts in recruiting volunteers from the target population for previous clinical trials (if applicable), any potential barriers to accrual, such as a change in the target population demographics, a change in medical practices, or competing clinical trials; and plans for addressing unanticipated delays (e.g., slow accrual). Volunteer selection should be equitable. The protocol should include justification of any age, race, ethnicity, or sex limitations provided.

10. Inclusion/Exclusion Criteria: List the inclusion and exclusion criteria in the protocol. Inclusion/exclusion criteria should take into consideration the specific risk profile of the studies to be conducted and the standard of care for that patient population. Ensure that exclusions are justified. Clearly state the exclusion criteria for volunteers with disease, taking medications, or from certain groups.

Inclusion of Women and Minorities in Study. Consistent with the Belmont Report and recent congressional legislation, special attention is given to inclusion of women and minorities in studies funded or supported by the USAMRMC. This policy is intended to promote equity both in assuming the burdens and in receiving the benefits of human subjects research. If women and/or minorities will be excluded from the protocol, an appropriate justification must be included.

11. Description of the Recruitment Process: Explain methods for identification of potential volunteers (e.g., medical record review, obtaining sampling lists, health care provider identification, etc.).

- Describe the recruitment process *in detail*. Address who will identify potential volunteers, who will recruit them, and what methods will be used to recruit them.
- If volunteers will be compensated for participation in the study, a detailed description of the compensation plan should be included in the protocol. Ensure that the compensation plan is fair and does not provide undue inducement. If the study requires multiple visits, a plan for pro-rating payments in the event of volunteer withdrawal should be considered.
- Describe the recruitment and advertisement materials. The recruitment materials should not be coercive or offer undue inducements, and should accurately reflect the study. An ombudsman should be considered for use with particularly vulnerable populations.
- Some important considerations for recruitment materials include:
 - Recruitment materials should not promise a cure or benefit beyond what is mentioned in the protocol or consent form.
 - If the volunteers will be paid, the amount of payment should not be presented in bold type, larger than other text, or otherwise overemphasized.
 - Recruitment materials should not promise “free medical treatment” when treatment is not the true intent of the study.

12. Sample Size Justification: A complete power analysis must be included in the protocol to ensure that the sample size is appropriate to meet the objectives of the study. The protocol should specify the approximate number of volunteers that will be enrolled. If the protocol involves multiple sites, the number enrolled at each site should be stated in the master protocol.

13. Description of the Informed Consent Process: Specifically describe the plan for obtaining informed consent from volunteers. Provide the Informed Consent Form.

- Identify who is responsible for explaining the study, answering questions, and obtaining informed consent.
- Include information regarding the timing and location of the consent process.
- If applicable, address issues relevant to the mental capacity of the potential volunteer (e.g., altered capacity due to administration of any mind-altering substances such as

tranquilizers, conscious sedation or anesthesia, brain injury, stress/life situations, or volunteer age).

- Address how privacy and time for decision making will be provided and whether or not the potential volunteer will be allowed to discuss the study with anyone before making a decision.
- As consent is an ongoing process, consider the need for obtaining ongoing consent or for re-assessing capacity over the course of a long-term study, and describe any relevant procedures to assure continued consent.
- If volunteers who cannot give their own consent to participate will be included in the study, there must be a plan for the consent of the individual's Legally Authorized Representative (LAR) to be obtained prior to the volunteer's participation in the study. State law defines who may act as the LAR. The Institutional Review Board (IRB) of record should be consulted for guidance regarding who can serve as LAR for research at the study site.
- If illiterate volunteers are anticipated, the consent process to be followed for illiterate volunteers should be outlined in the protocol. The consent form should be verbally read/explained to the volunteer in the presence of a witness. The volunteers must sign or make a mark (such as a thumbprint) to indicate agreement to participate, and the witness must sign to attest that the content of the written consent form was accurately conveyed to the volunteer.
- If it is anticipated that volunteers who do not speak the primary language of the host country will be enrolled in a trial, all documentation provided to volunteers (consent form, information sheets, etc.) should be translated with a copy provided to the HRPO for review at a later date. A plan for ensuring that volunteers' questions will be addressed during the consent process and throughout the trial should be included.

NOTE: When consent will be obtained in a language other than English, documentation that the foreign language version of the consent form is an accurate translation of the English version of the consent form must be provided to the HRPO at a later date. Documentation from a qualified translator certifying the translation must be provided along with the English and foreign language version of the consent forms. The documentation of translation should include the following statement: "I certify that this is an accurate and true translation." The signature, name, address, phone number, and, if available, fax number of the translator should also be included.

- If a waiver of all or parts of the consent process is being sought, or a waiver of documentation of consent is desired, include justification of why the waiver should be considered. This justification should include how the protocol meets the criteria set forth in 32 CFR 219 (Title 32 of the Code of Federal Register, Section 219). If consent to use existing samples or data in a future study was provided as part of another study protocol, this should be clearly explained. If the institution is a covered entity, justification for Health Insurance Portability and Accountability Act (HIPAA) waiver requests should also be provided.

Assent. When minors are included in a study, a plan to obtain assent (agreement) from those with capacity to provide it, or a justification for a waiver of assent should be

provided. Age-appropriate assent forms should be developed for use with minors when assent is obtained. Capacity to provide assent should also be considered for other populations that cannot provide informed consent, and assent should be obtained whenever possible.

14. Volunteer Screening Procedures: List and describe any evaluations (e.g., laboratory procedures, history, or physical examination) that are required to determine eligibility/suitability for study participation and the diagnostic criteria for entry. Please note that some screening procedures may require a separate consent or a two-stage consent process. Informed consent must be obtained prior to initiation of any procedures for the purpose of determining eligibility.

15. Study Procedures/Study Interventions: Describe the study intervention or activity that the volunteer will experience. Provide sufficient detail in chronological order for a person uninvolved in the study to understand what the volunteer will experience and when it will occur. Provide a schedule of study evaluations and follow-up procedures. Provide all case report forms, data collection forms, questionnaires, rating scales, and interview guides, etc., that will be used in the study.

16. Description of Protocol Drugs or Devices: If the protocol uses a drug, biologic, device, or dietary supplement, provide the following information:

- For medical products regulated by the Food, Drug, and Cosmetic Act, designate the protocol as Phase 0, -I, or -II research.
- If the study is in support of an application to the Food and Drug Administration (FDA) or other appropriate agency, provide the IND/IDE number and name of the sponsor.
- Provide complete names and composition of all medications, devices, or placebos.
- Identify the source of medications, devices, or placebos.
- Describe the location of storage for study medications.
- Describe the dose range, schedule, and administration route of test articles.
- Describe washout period, if used, in detail.
- Describe the duration of drug or device treatment.
- Declare concomitant medications allowed.
- Identify any antidotes and treatments available for potential side-effects.
- Describe the plan for disposition of unused drug.
- For FDA-regulated studies, describe the procedure by which the IND sponsor will monitor the protocol in accordance with 21 CFR 312.

17. Laboratory Evaluations:

- **Specimens to be collected, schedule, and amount.** All specimens that will be collected for study purposes must be clearly stated in the protocol. The collection schedule and amount of material collected must also be clearly described. This may be represented using a table or schematic for more involved protocols.
- **Evaluations to be made.** All evaluations that will be made for study purposes should be stated in the protocol. Copies of all data collection forms must be provided. The protocol should explain how the results of laboratory evaluations will be used to meet the objectives of the study (or to monitor safety of volunteers).
- **Storage.** Specimen storage must be described in the protocol, to include where, how long, any special conditions required, labeling, and disposition. If there is a plan to store specimens for future use (either by the investigator or through an established repository), this should be outlined in the protocol. If samples will be collected for future use in other studies (and if this is not the sole purpose of the protocol), volunteers should be given the chance to opt out. Potential future uses of samples should be addressed to the degree possible. If volunteers are given a menu of options regarding sample donation for future research, procedures should be in place to ensure that volunteers' wishes for use of the samples are honored. Procedures for withdrawal of samples at the request of the volunteer should be described if samples will remain coded or identified.
- **Labs performing evaluations and special precautions.** The laboratory performing each evaluation should be clearly identified in the protocol, as well as any special precautions that should be taken in handling the samples. Special precautions that should be taken by the volunteer before, during, or after the laboratory procedure should be clearly defined. If transport of samples is required, provisions for ensuring proper storage during transport should be included in the protocol.

18. Data Analysis: Describe the data analysis plan. The data analysis plan should be consistent with the study objectives.

19. Data Management:

- **Methods used for data collection.** All methods used for data collection should be described in the protocol. Copies of data collection forms and any test instruments administered should be provided. Data collection forms should be adequate and accurate according to the data collection plan described in the protocol. Whenever possible, identifiers should be removed from data collection forms. Critical measurements used as endpoints should be identified.
- **Volunteer identifiers.** If unique identifiers or a specific code system will be used to identify volunteers, this process should be described in the protocol.
- **Confidentiality.**
 - Explain measures taken to protect the privacy of study volunteers and maintain confidentiality of study data. Strategies to protect the privacy and confidentiality of study records, particularly those containing identifying information, should be

addressed. Investigators collecting particularly sensitive information should consider obtaining a Certificate of Confidentiality.

- Address who will have access to study records, data, and specimens. The protocol should acknowledge that representatives of USAMRMC are eligible to review study records.
- Requirements for reporting sensitive information to state or local authorities should be addressed in the protocol. Examples of sensitive information that may require reporting include positive HIV (human immunodeficiency virus), hepatitis, or tuberculosis test results, illegal residency, child or spouse abuse, or participation in other illegal activities. These requirements will vary from state to state. Investigators should consult his or her IRB for assistance with state requirements.
- **Disposition of data.** Describe where data (both electronic and hard copy) will be stored, who will keep the data, how the data will be stored, and the length of time data will be stored. Note that records of IND studies must be kept for 2 years after a New Drug Application is approved/issued, or for 2 years after the IND is withdrawn. Records required for IDE studies should be retained for 2 years following the date that the investigation is terminated or completed, or the date that the records are no longer required for support of the pre-market approval application, whichever is sooner.
- **Sharing study results.** In cases where a volunteer could possibly benefit medically or otherwise from the information, the protocol should explain whether or not the results of screening and/or study participation will be shared with volunteers or their primary care provider, to include results from any screening or diagnostic tests performed as part of the study. The potential benefits of providing volunteers with the information should be weighed against the potential risks. It is generally not advisable to use experimental assays or techniques to guide clinical care.

20. Risks/Benefits Assessment:

- **Foreseeable risks.** The protocol should clearly identify all study risks. Study risks include any risks that a volunteer is subjected to as a result of participation in the protocol. Consider psychological, legal, social, and economic risks as well as physical risks. If the risks are unknown, this should be stated in the protocol. If applicable, any potential risk to the study personnel should be identified.
- **Risk management and emergency response.**
 - List all measures to be taken to minimize and/or eliminate risks to volunteers and study personnel or to manage unpreventable risks. All safety measures in place to mitigate risk (e.g., core temperature monitoring, electrocardiogram monitoring, observation periods, special procedures to avoid disclosure of potentially damaging information) should be described.
 - Planned responses such as dose reduction or stopping criteria based on toxicity grading scales or other predetermined alert values, and other safeguards should be detailed in the protocol.

- If there is a chance a volunteer may require emergency care or treatment for an adverse event, the protocol should discuss the overall plan for provision of care for study-related injuries, to include who will be responsible for the cost of such care. For example, if a study sponsor or institution has committed to providing care for study-related injury at no cost to volunteers, this provision should be explained in the protocol. The clinical site must have adequate personnel and equipment to respond to expected adverse events, and the nearest medical treatment facility should be identified in the emergency response plan.
- Any special precautions to be taken by the volunteers before, during, and after the study (e.g., medication washout periods, dietary restrictions, hydration, fasting, pregnancy prevention, etc.) must be addressed. If pregnant volunteers will be excluded from participation in the study, the method used to determine pregnancy status in women of childbearing potential must be specified. Also, the time that will elapse between the pregnancy test and exposure to study procedures or medical products must be stated, as well as how long the non-pregnant volunteer should use effective contraceptive practices after participating in the study. Please note that contraceptive practices may be necessary for male volunteers participating in certain types of studies. For IND studies, pregnancy testing is recommended within 48-72 hours before the start of the study. Consideration should be given to repeating testing prior to administration of test articles.
- Any special care (e.g., wound dressing assistance, transportation due to side effects of study intervention impairing ability to drive) or equipment (e.g., thermometers, telemedicine equipment) needed for volunteers enrolled in the study must be described in the protocol.
- **Potential benefits.** Describe real and potential benefits of the study to the volunteer, a specific community, or society. Ensure that the benefits are not overstated. ***NOTE: Payment and/or other compensation for participation are not considered to be benefits and must be addressed in a separate section.***
- **Intent to benefit.** If volunteers cannot give their own consent to participate in an experimental study, and Title 10 United States Code Section 980 (10 USC 980) (<http://www.dtic.mil/biosys/downloads/title10.pdf>) applies, a clear intent to benefit each volunteer must be described in the protocol. Please refer to the Application Instructions and General Information, Appendix 6, for more information.

21. Study Personnel:

- **Roles and responsibilities of key study personnel.** Briefly describe the duties of key study personnel. Describe their roles in the study effort. A study coordinator is required at an appropriate level of effort whose duties may include the following: Recruit and consent volunteers, maintain study records, administer study drug, take and record vital signs, and enter data into computer database. A key person must be identified who will be responsible for guiding the protocol through the IRB, HRPO, and other regulatory approval processes, coordinating activities from all sites participating in the trial, and coordinating participant accrual.

- **Conflicts of interest.** Investigators and key study staff must disclose any real or apparent conflicts of interest (financial or other). This information may be provided in the protocol or by submission of a conflict of interest declaration form. (Many institutions have a form for this purpose, as does the FDA. A Financial Disclosure Form for Investigators is also available on the HRPO website at <https://mrmc-www.army.mil/rodorphrpo.asp> that will meet this requirement.) Measures taken to mitigate the impact of conflicts of interest must be provided. Information regarding conflicts of interest should be disclosed to volunteers in the consent form. All protocols that support development of a drug, device, or other intellectual property require completion of a conflict of interest declaration by all investigators on the protocol. Other protocols may require conflict of interest statements on a case by case basis.

22. Roles and Responsibilities of Medical Monitor: The DOD requires that a medical monitor be assigned to greater-than-minimal-risk protocols. The specific roles the medical monitor will fulfill should be outlined in the protocol.

NOTE: The HRPO requires that the medical monitor review all unanticipated problems involving risk to volunteers or others, serious adverse events, and all volunteer deaths associated with the protocol, and provide an unbiased written report of the event within 10 calendar days. At a minimum, the medical monitor should comment on the outcomes of the adverse event and relationship of the event to the protocol or test article. The medical monitor should also indicate whether he/she concurs with the details of the report provided by the PI. Reports for events determined by either the investigator or medical monitor to be possibly or definitely related to participation, and reports of events resulting in death should be promptly forwarded to the HRPO.

23. Study Organization and Management Plan: Provide an organizational chart and a timetable for completion for the clinical trial and publication. Provide a plan for ensuring the standardization of procedures among staff and across sites (if applicable). Provide a plan for real-time communication among collaborating institutions (if applicable).

24. Withdrawal from the Protocol: Volunteers may discontinue participation in the study at any time without penalty or loss of benefits to which the volunteer is otherwise entitled. If appropriate, the protocol should describe the procedure in place to support an orderly end of the volunteer's participation (e.g., exit exam or follow-up safety visits outside of the context of the research study, information regarding prorated payment for partial participation, etc.) and the consequences of a volunteer's decision to withdraw from the study. The anticipated circumstances under which the volunteer's participation may be terminated by the investigator or others should also be addressed (e.g., noncompliance, safety issues, loss of funding, etc.).

25. Modifications to the Protocol: Describe the procedures to be followed if the protocol is to be modified, amended, or terminated before completion. Note that any modification to the protocol, consent form, and/or questionnaires, including a change to the PI, must be submitted to the local IRB for review and approval. Major modifications to the study protocol and any modifications that could increase risk to volunteers must be submitted to the HRPO for approval *prior to implementation*. Some examples of major modifications

include a change in PI, addition of a study site, changes in study design, and addition or widening of a study population. All other amendments will be submitted with the continuing review report to the HRPO for acceptance. Address the procedure for submitting amendments even if modifications to the protocol are not anticipated.

- **Protocol Deviations.** Describe procedures and notifications to be made in the event of deviations from the approved protocol to include both the local IRB and the HRPO. *NOTE: Any deviation to the protocol that may have an effect on the safety or rights of the volunteer, or the integrity of the study must be promptly reported to the HRPO.*

26. Reporting of Serious Adverse Events and Unanticipated Problems:

- Reporting procedures will differ from institution to institution, so it is important for investigators to identify the reporting requirements for all entities involved in review of the protocol, and to clearly define this procedure within the protocol.
- Serious adverse events and unanticipated problems can occur in any and all types of studies, not just experimental interventions or clinical trials.
- Include a definition of what constitutes an adverse event in the study. For IND or IDE studies, include definitions as described in 21 CFR 312.32 and the ICH (International Conference on Harmonization) E2A Guidelines (<http://www.ich.org/cache/compo/475-272-1.html>).
- Describe agencies or offices to be notified with point of contact information in the event of an unanticipated problem or serious adverse event.

All protocols should contain the following language regarding the HRPO reporting requirements for adverse events and unanticipated problems: “Unanticipated problems involving risk to volunteers or others, serious adverse events related to participation in the study, and all volunteer deaths related to participation in the study should be promptly reported by phone (301-619-2165), by email (hsrrb@amedd.army.mil), or by facsimile (301-619-7803) to the US Army Medical Research and Materiel Command’s Office of Research Protections, Human Research Protections Office. A complete written report should follow the initial notification. In addition to the methods above, the complete report can be sent to the US Army Medical Research and Materiel Command, ATTN: MCMR-ZB-P, 504 Scott Street, Fort Detrick, Maryland 21702-5012.”

For protocols that have a medical monitor assigned, the following language should also be included:

“The medical monitor is required to review all unanticipated problems involving risk to volunteers or others, serious adverse events, and all volunteer deaths associated with the protocol, and provide an unbiased written report of the event to the USAMRMC ORP, HRPO. At a minimum, the medical monitor should comment on the outcomes of the event or problem, and in the case of a serious adverse event or death comment on the relationship to participation in the study. The medical monitor should also indicate whether he/she concurs with the details of the report provided by the study investigator. Reports for events

determined by either the investigator or medical monitor to be possibly or definitely related to participation, and reports of events resulting in death should be promptly forwarded to the HRPO.”

27. Continuing Review and Final Report: The protocol should acknowledge that a copy of the approved continuing review report and the local IRB approval notification will be submitted to the HRPO as soon as these documents become available. A copy of the approved final study report and local IRB approval notification will be submitted to the HRPO as soon as these documents become available.

B. Surveys, Questionnaires, and Other Data Collection Instruments: If the study involves surveys, questionnaires, case report forms, data collection forms, rating scales, interview guides, or other instruments, include a copy of the most recent version of each of these documents with the protocol submission. For each instrument that is used, the following information at a minimum should be addressed.

- Information collected with study instrument must be related to the objectives of the study.
- Procedures for use of study instruments should be clear in the protocol. Study instruments should be coded to protect confidentiality whenever possible.
- For study instruments provided to and/or completed by volunteers, the study instrument should be legible and presented at a reading level appropriate to the population. Copies of instruments submitted for review must also be legible.

C. Additional Protocol Language Requirements

The following are reporting requirements and responsibilities of the PI to the USAMRMC ORP, HRPO, and should be reflected in the protocol:

- The protocol will be conducted in accordance with the protocol submitted to and approved by the USAMRMC ORP, HRPO, and will not be initiated until written notification of approval of the research project is issued by the USAMRMC ORP, HRPO.
- Accurate and complete study records will be maintained and made available to representatives of the USAMRMC as a part of their responsibility to protect human subjects in research. Research records will be stored in a confidential manner so as to protect the confidentiality of subject information.
- The knowledge of any pending compliance inspection/visit by the FDA, OHRP, or other government agency concerning clinical investigation or research, the issuance of Inspection Reports, FDA Form 483, warning letters, or actions taken by any Regulatory Agencies, including legal or medical actions, and any instances of serious or continuing noncompliance with the regulations or requirements will be reported immediately to USAMRMC ORP, HRPO.

VII. ADMINISTRATIVE ACTIONS

After receipt of applications from Grants.gov, the following administrative actions may occur.

A. Rejection

The following will result in administrative rejection of the application:

- Project Narrative exceeds page limit
- Project Narrative or Clinical Protocol (if applicable) is missing.
- Budget is missing.
- Page size is larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).

B. Modifications

- Pages exceeding the specified limits will be removed for all documents other than the Project Narrative or Clinical Protocol.
- Documents not requested will be removed.
- **NEW for FY09:** Following the application deadline, you may be contacted by email from CDMRP with a request to provide certain missing supporting documents (excluding those listed directly above in Section A, Rejection). The missing documents must be provided within 48 hours of the date and time the email was sent. Otherwise, the application will be peer reviewed without the missing documents.

C. Withdrawal

The following may result in administrative withdrawal of the application:

- FY09 IP member(s) is found to be involved in the pre-application or application processes including, but not limited to, concept design, application development, budget preparation, and the development of any supporting document. A list of the FY09 IP members may be found at <http://cdmrp.army.mil/research.htm>.
- Submission of the same research project to different award mechanisms within the same program or to other CDMRP programs.
- The application does not conform to this funding opportunity description to an extent that precludes appropriate scientific peer and programmatic review.
- Direct costs as shown on the detailed budget form exceed the maximum allowed by the award mechanism.
- Inclusion of URLs, with the exception of links to published references.

D. Withhold

Applications that appear to involve research misconduct will be administratively withheld from further consideration pending institutional investigation. The institution will be requested to provide the findings of the investigation to the USAMRAA Contracting/Grants Officer for a determination of the final disposition of the application.

VIII. CONTACT INFORMATION

A. Program Announcement/Funding Opportunity, application format, or required documentation: To view all funding opportunities offered by the CDMRP, perform a Grants.gov basic search using the CFDA Number 12.420. Submit questions as early as possible. Response times will vary depending upon the volume of inquiries. Every effort will be made to answer questions within 5 working days.

Phone: 301-619-7079

Fax: 301-619-7792

Email: cdmrp.pa@amedd.army.mil

B. eReceipt system: Questions related to pre-application components through the CDMRP eReceipt system should be directed to the eReceipt help desk, which is available Monday through Friday from 8:00 a.m. to 5:00 p.m. ET.

Phone: 301-682-5507

Website: <https://cdmrp.org>

Email: help@cdmrp.org

C. Grants.gov contacts: Questions related to application submission through the [Grants.gov](https://www.grants.gov/) (<http://www.grants.gov/>) portal should be directed to the Grants.gov help desk, which is available Monday through Friday, 7:00 a.m. to 9:00 p.m. ET. Deadlines for application submission are 11:59 p.m. ET on the deadline date. Please note that the CDMRP help desk is unable to answer questions about Grants.gov submissions.

Phone: 800-518-4726

Email: support@grants.gov

Grants.gov will notify PIs of changes made to this Program Announcement/Funding Opportunity and/or application package ONLY if the PI subscribes to the mailing list by clicking on the “send me change notification emails” link on the Opportunity Synopsis page for this announcement. If the PI does not subscribe and the application package is updated or changed, the original version of the application package may not be accepted.