

Program Announcement

Department of Defense (DOD) Neurofibromatosis Research Program (NFRP)

Funding Opportunity Number: W81XWH-07-NFRP-IIRA

Investigator-Initiated Research Award

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I. HELP LINE INFORMATION

A. Agency Name

US Army Medical Research and Materiel Command (USAMRMC), Office of the Congressionally Directed Medical Research Programs (CDMRP), 1077 Patchel Street, Fort Detrick, Maryland 21702-5024.

B. Agency Contact(s)

1. Program announcement, proposal format, or required documentation: Principal Investigators (PIs) and Authorized Organizational Representatives (AORs) should submit questions as early as possible. 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

2. eReceipt system: A help line for questions relating to the submission of pre-application components through the CDMRP eReceipt system is available Monday through Friday from 8:00 a.m. to 5:00 p.m. Eastern time at 301-682-5507. Help also is available on the CDMRP website or by email as follows:

Website: <https://cdmrp.org>
Email: help@cdmrp.org

3. Grants.gov: Issues in submitting applications through the [Grants.gov](https://www.grants.gov) (<http://www.grants.gov/>) portal should be directed to Grants.gov at 800-518-4726 or email support@grants.gov. The Grants.gov hours of operation are Monday through Friday, 7:00 a.m. to 9:00 p.m. Eastern time. Deadlines for proposal submission are set at 11:59 p.m. Eastern Time on the deadline date. Therefore, there is an approximate 3-hour period during which the Grants.gov Help Desk will NOT be available to assist with Grants.gov submissions. Please plan ahead accordingly, as the CDMRP Help Desk is not able to answer questions about Grants.gov submissions.

Grants.gov will only notify PIs of changes made to this Program Announcement and/or Application Package if the PI clicks on the “send me change notification emails” link and subscribes to the mailing list on the Opportunity Synopsis Page for this announcement. Please note that 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.

C. Anticipated Instrument Type(s)

The USAMRMC implements its extramural research program predominantly through the award of grants and cooperative agreements. More information on these funding instruments may be obtained by request via:

Fax: 301-619-2937
Email: qa.baa@amedd.army.mil

D. Catalog of Federal Domestic Assistance (CFDA) Number 12.420

Military Medical Research and Development.

E. Commonly Made Errors

- Pre-application submission is not completed before the mandatory pre-application deadline (pre-application remains in draft status).
- Failure to request updates on any modifications made to the application package.
- Incorrect application package or award mechanism is used to submit proposal through Grants.gov.
- Attachments are uploaded into the incorrect form on Grants.gov.
- Files are attached in the wrong location on Grants.gov forms.
- Attachments are not PDF documents.
- Failure to properly read the program announcement.
- Page limitations are exceeded.

II. FUNDING OPPORTUNITY DESCRIPTION

A. Award Description

The Neurofibromatosis Research Program (NFRP) Investigator-Initiated Research Award supports basic and clinically oriented research that will (1) provide insight into the development of NF and related diseases, (2) result in substantial improvements over today's approach to the diagnosis and treatment of neurofibromatosis and/or Schwannomatosis, (3) enhance the quality of life of persons with those diseases. Proposals must include preliminary data relevant to NF research and the proposed project. In addition, if appropriate, a clear statistical plan of analysis should be included.

The fiscal year 2007 (FY07) NFRP encourages proposals that specifically address critical needs of the NF community in the following areas (please note that these have been revised since FY06):

- Translational research such as the development or preclinical testing of therapeutic agents for the treatment of neurofibromatosis;
- Complications of neurofibromatosis with high mortality such as childhood neoplasms, malignant peripheral nerve sheath tumors, and cerebrovascular abnormalities;
- Complications of neurofibromatosis with high morbidity such as skeletal maladies, learning deficits, hormone-associated effects, and pain;
- Refinement and standardization of imaging techniques for use in future clinical trials.

Proposals including Clinical Trials: If a proposal requests support for a clinical trial, the Principal Investigator (PI) is required to submit a clinical protocol in addition to the proposal by the proposal receipt deadline. Guidelines for protocol preparation are outlined in [Appendix 7](#). The protocol will be reviewed separately.

Optional Collaborator (new this year): The FY07 NFRP strongly supports collaborative research between basic scientists and clinical researchers and between academic scientists and industry scientists. Collaborations that bring new perspectives from other disciplines or bring new investigators into the NF field are also strongly encouraged. These types of collaborations will qualify for a higher level of funding as described in [Section II.C](#).

Proposals requesting the higher level of funding must meet the following criteria:

- The collaborator must significantly contribute to the project such that the proposed work could not be accomplished without his/her involvement.
- If the PI of the proposal does not have NF research experience, the collaborator must have experience in NF research 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 proposal's budget.

The letter of collaboration must clearly articulate how each of these criteria are met for the proposal to qualify for the higher level of funding.

B. Eligibility

To be eligible for this award, PIs must be *at or above* the level of Assistant Professor (or equivalent). Additional information about individual and institutional eligibility may be found in [Appendix 1](#).

C. Funding

Funding for an Investigator-Initiated Research Award can be requested for up to \$525,000 for direct costs for up to a 3-year performance period plus indirect costs as appropriate.

Funding for an Investigator-Initiated Research Award that includes a qualified collaborator can be requested for up to \$675,000 for direct costs for up to a 3-year performance period plus indirect costs as appropriate.

When the applicant institution calculates indirect costs for subawards, the applicant institution can only charge indirect costs on the first \$25,000 of each subaward.

Funds can cover:

- salary
- research supplies
- equipment
- travel to scientific/technical meetings
- travel between collaborating institutions

The nature of the NFRP does not allow for renewal of grants or supplementation of existing grants. Projects requiring lower levels of funding may also be submitted.

The CDMRP expects to allot approximately \$3 million (M) of the \$10M Fiscal Year 2007 (FY07) NFRP appropriation to fund approximately 3-4 Investigator-Initiated Research Awards, depending on the quality and number of proposals received.

D. Award Administration

Transferring an award that includes a clinical trial will not be permitted.

E. Submission and Review Timeline

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

- **Pre-application Submission Deadline: 5:00 p.m. Eastern time, April 19, 2007**

- **Proposal Submission Deadline:** **11:59 p.m. Eastern time, May 15, 2007**
- **Peer Review:** **Summer 2007**
- **Programmatic Review:** **Fall 2007**

Awards will be made approximately 4-6 months after receiving the funding notification letter, but no later than 30 September 2008.

III. PROGRAM HISTORY AND OBJECTIVES

The NFRP was established in FY96 to promote research focused on decreasing the impact of neurofibromatosis (NF). Appropriations for the NFRP from FY96 through FY06 totaled \$172.3M. During this time, 239 Investigator-Initiated Research Award proposals have been received and 78 have been recommended for funding. The FY07 appropriation is \$10M.

The vision of the FY07 NFRP is to find and fund the best research to eradicate the clinical impact of neurofibromatosis. The NFRP challenges the scientific community to design innovative research that will foster new directions for, address neglected issues in, and bring new investigators to the field of neurofibromatosis research. Scientific ventures that represent underinvestigated avenues of research or novel applications of existing technologies are highly sought. The NFRP encourages proposals involving multidisciplinary and/or multi-institutional collaborations and alliances.

The NFRP's objective within this context is to fund a balanced portfolio of scientifically meritorious research related to all aspects of neurofibromatosis and/or Schwannomatosis. The NFRP seeks proposals from all areas of laboratory, clinical, behavioral, and epidemiologic research, including all disciplines within the basic, clinical, psychosocial, behavioral, sociocultural, and environmental sciences; nursing; occupational health; alternative therapies; public health and policy; ethics; and economics. Proposals that address the needs of minority, low-income, rural, and other underrepresented and/or medically underserved populations are strongly encouraged.

IV. SUBMISSION PROCESS STEP 1: PRE-APPLICATION SUBMISSION

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) a proposal submission through [Grants.gov \(http://www.grants.gov/\)](http://www.grants.gov/). This section describes the process for pre-application submission. For proposal submission, see [Section V](#). ***Proposal submission will not be accepted unless a pre-application was previously submitted.*** The PI and Organization identified in the proposal 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, please contact the eReceipt help desk at help@cdmrp.org or 301-682-5507.

For assistance, please see Help Line Information ([Section I](#)).

A. Pre-application Components and Submission

The pre-application for an Investigator-Initiated Research Award consists of a Letter of Intent (LOI) Narrative and the other components discussed below. This subsection provides a summary of the pre-application submission requirements.

All pre-application components for the NFRP Investigator-Initiated Research Award mechanism, including the LOI Narrative, must be submitted electronically through the [CDMRP eReceipt system](#) by the **5:00 p.m. Eastern time, April 19, 2007 deadline**. Material submitted after the pre-application submission deadline, unless specifically requested by the Government, will not be forwarded for processing. Failure to meet this deadline shall result in pre-application rejection and subsequent proposal rejection.

- 1. Proposal Information:** PIs must enter the Proposal Information as described in the [CDMRP eReceipt system](#) before uploading the LOI Narrative.
- 2. Proposal Contacts:** Enter contact information for the PI.
- 3. Collaborators and Conflicts of Interest (COI):** To avoid COI during the screening and review processes, list the names of all scientific participants in the proposed research project including collaborators, consultants, and subawardees. Inclusion of FY07 NFRP Integration Panel (IP) members in any capacity in the proposal, budget, or any supporting document will result in administrative withdrawal of the proposal. A list of the FY07 NFRP IP may be found at <http://cdmrp.army.mil/nfrp/panel07>
- 4. LOI Narrative:** The LOI Narrative has a **one-page limit** inclusive of figures, tables, graphs, photographs, diagrams, chemical structures, pictures, pictorials, and cartoons. The LOI Narrative should be a brief description of the research to be conducted.
- 5. Formatting Guidelines and Submission:** The LOI Narrative must be a PDF file, in accordance with the [formatting guidelines](#), and uploaded under the “Required Files” tab of the [CDMRP eReceipt system](#).
- 6. PI's Responsibility:** The PI is responsible for uploading the LOI Narrative (one-page limit) as a PDF file under the “Required Files” tab of the [CDMRP eReceipt system](#).

The electronic PDF file uploaded in the CDMRP eReceipt system is the official pre-application submission file. After conversion of word processing documents to PDF files and before electronic submission, PIs should review their files to ensure that the pre-application complies with the [formatting guidelines](#).

Once the PI has completed the pre-application submission process, the eReceipt system will generate a pre-application file. The PI should download the pre-application file (in .xml format) and attach it to form SF424 in Block 20 (pre-application) as part of the proposal submission through Grants.gov. Do not convert this file. *After submitting the pre-application, do not delay in submitting the proposal.*

7. AOR Approval: The pre-application submission does not require approval by the AOR before submission. Please see [Appendix 2](#) for the definition of an AOR.

B. LOI Narrative Review

The LOI Narrative will be administratively reviewed prior to peer review; it will not be reviewed during peer and programmatic reviews.

V. SUBMISSION PROCESS STEP 2: PROPOSAL SUBMISSION

This section describes the process for submission of a proposal, once a pre-application has been submitted. Proposals must be submitted electronically by the AOR through Grants.gov (www.grants.gov). No paper copies will be accepted.

Proposal submission will not be accepted unless a pre-application was previously submitted. The PI and Organization identified in the proposal 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, please contact the eReceipt help desk at help@cdmrp.org or 301-682-5507.

For complete information regarding forms and submission components, as well as general proposal preparation and submission instructions, please see [Appendix 3](#).

Please note, submission of a proposal requires institutional registration with the Central Contractor Registry (CCR), which requires a Data Universal Number System (DUNS) number, Tax Identification Number (TIN) or Employer Identification Number (EIN), and a Commercial and Government Entity (CAGE) code and must be completed well in advance of Grants.gov registration and proposal submission. Please note that CCR registrations have expirations. Plan accordingly and allow several weeks for these registration processes. Grants.gov will not allow proposals to be submitted unless all of the registration steps have been completed.

A. Proposal Components Summary

Each proposal submission must include the completed Grants.gov application package of forms and attachments identified in www.grants.gov for the US Army Medical Research Acquisition Activity (USAMRAA) program announcement. The package includes:

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

- Pre-application file downloaded from the CDMRP eReceipt system

2. Attachments Form

- Attachment 1: Project Narrative (20-page limit)
- Attachment 2: Supporting Documentation
 - References Cited and Acronyms and Symbol Definitions
 - Facilities & Other Resources
 - Description of Existing Equipment
 - Publications and/or Patent Abstracts (five-document limit)
 - Letters of Institutional Support
 - Letters of Collaboration (if applicable)
 - Intellectual and Material Property Plan (if applicable)

- Attachment 3: Technical and Public Abstracts
- Attachment 4: Statement of Work (SOW)
- Attachment 5: Innovation Statement
- Attachment 6: Impact Statement
- Attachment 7: Federal Agency Financial Plan (if applicable)
- Attachment 8: Clinical Protocol (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 Budget Form

- Budget Justification

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

6. R&R Subaward Budget Attachment(s) Form (if applicable)

B. Clinical Protocol (if applicable)

If a proposal requests support for a clinical trial, the PI is required to submit a clinical protocol in addition to the proposal by the proposal receipt deadline. Clinical protocols must be submitted as an attachment using the Grants.gov Attachments Form ([Appendix 3](#)). It is imperative that the PI follow the guidelines for clinical protocol preparation in [Appendix 7](#). Clinical protocols will be reviewed separately from the proposal using the review criteria in [Section VII.B](#). Both the proposal and protocol will be considered at programmatic review.

Grants.gov will only notify PIs of changes made to this Program Announcement and/or Application Package if the PI clicks on the “send me change notification emails” link and subscribes to the mailing list on the Opportunity Synopsis Page for this announcement. Please note that 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.

VI. PROPOSAL REVIEW INFORMATION

A. Proposal Review and Selection Overview

All proposals are evaluated by scientists, clinicians, and consumer advocates using a two-tier review process. The first tier is a scientific peer review of proposals 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 and overall goals of the program. Additional information about the two-tier review process used by the CDMRP may be found at <http://cdmrp.army.mil/fundingprocess>

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

B. Review Criteria

1. **Peer Review:** All proposals will be evaluated according to the following criteria:

- **Research Strategy (preliminary data are required)**
 - How well the preliminary data and rationale supports the research project.
 - How well the hypotheses or objectives, aims, experimental design, methods, and analyses are developed.
 - How well the PI acknowledges potential problems and addresses alternative approaches.
- **Impact**
 - How the proposal addresses a critical problem in neurofibromatosis and/or Schwannomatosis research or patient care.
 - How the project makes an original and important contribution to the goal of advancing research on the treatment of neurofibromatosis and/or Schwannomatosis or on the quality of life of patients.
- **Personnel**
 - The appropriateness of the levels of effort by the PI and other key personnel to ensure success of this project.
 - How the PI's record of accomplishment demonstrates his/her ability to accomplish the proposed work.
 - **Optional Collaborator(s) (if applicable)**
 - Whether the collaborator's experience, expertise, and involvement in the study significantly contributes to the project such that the proposed work could not be accomplished without his/her efforts.
 - Whether the collaborator meets the criteria for an optional collaborator as verified by the Letter of Collaboration (i.e., the collaborator possesses appropriate NF 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 a 10% level of effort).

- **Innovation**
 - How the proposed research is innovative in one or more of the following ways: concept or question, research methods or technologies, adaptations of existing methods or technologies, or other ways.
 - How the project proposes new paradigms or challenges existing paradigms.
 - How the proposed research represents more than a mere extension or an incremental advance upon published data.
 - How the potential gain justifies the perceived risk.
- **Environment**
 - The appropriateness of the scientific environment for the proposed research.
 - How the research requirements are supported adequately by the availability of and accessibility to facilities and resources (including collaborative arrangements).
 - The quality and extent of institutional support.
- **Budget**
 - How the budget is appropriate for the proposed research.

2. Programmatic Review: Criteria used by the IP to make funding recommendations that maintain the program's broad portfolio include:

- Ratings and evaluations of the peer reviewers (scientific and consumer),
- Programmatic relevance,
- Relative innovation and impact,
- Program portfolio balance, 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 selected by the IP and recommended for funding to the Commanding General, USAMRMC.

VII. CLINICAL PROTOCOL REVIEW (IF APPLICABLE)

A. Required Elements of a Clinical Protocol

See [Appendix 7](#) for information.

B. Review Criteria

All clinical trials will be scientifically reviewed according to the following criteria as applicable. The reviewers will evaluate:

- **Trial Design**
 - How the scientific rationale and preliminary data, including critical review and analysis of the literature and laboratory and preclinical evidence support the proposed trial and its feasibility.
 - How well the aims, hypothesis or objectives, experimental design, methods, data collection procedures, and analyses are developed.
 - How the logistical aspects of the proposed clinical trial (e.g., communication plan, data transfer and management, and standardization of procedures) are adequate.
 - How the recruitment, informed consent, and screening processes for volunteers will be conducted.
 - Whether the inclusion, exclusion, and randomization criteria are adequate.
- **Clinical Impact**
 - How this study will affect the treatment and/or management of the disease.
 - How this study will affect the magnitude and scope of potential clinical applications.
- **Intervention, Drug, or Device**
 - The appropriateness of the intervention, drug, or device to be tested in the clinical trial.
 - The availability and purity of the substance to be used in the clinical trial (if applicable).
 - Documentation that an IND/IDE has been submitted (if applicable).
 - The FDA regulatory components of IND/IDE trials (if applicable).
- **Feasibility**
 - The feasibility of the proposed clinical study.
 - The plans for addressing unanticipated delays (e.g., slow accrual) and completing the proposed study within the performance period.
 - The availability of volunteers for the clinical trial, the prospect of their participation, and the likelihood of volunteer attrition.

- The progress toward obtaining local IRB approval of the clinical protocol and informed consent form.
- **Statistical Plan**
 - How the statistical plan, including sample size projections and power analysis, is adequate for the trial and all proposed correlative studies.
 - The consistency of the data analysis plan with the study objectives.
- **Personnel**
 - How the clinical trial team's background and expertise are appropriate to accomplish the proposed work (i.e., statistical expertise, expertise in the disease, and clinical trials).
 - The appropriateness of the levels of effort for successful conduct of the proposed work.
- **Environment**
 - The evidence of an appropriate scientific environment, clinical setting, and the accessibility of institutional resources to support the clinical trial at each participating center.
 - Whether the clinical trial requirements are supported adequately by the accessibility to facilities and resources (including collaborative arrangements).
 - The institutional commitment from each participating institution.
 - The intellectual and material property plan that is agreed upon by all centers.
- **Ethics and/or Regulatory Issues**
 - How the ethical considerations, information privacy, and assessment of risks and benefits of participation in the clinical trial will be addressed.
 - The plan for dealing with adverse events, which should include named agencies or offices to be notified in this event and point of contact information.
 - The plans for data disposition during and after the clinical trial.
 - The procedures for protocol modifications during the course of the study.
 - The plans for data and safety monitoring.
- **Budget**
 - How the budget is appropriate for the proposed clinical trial.

VIII. COMPLIANCE GUIDELINES

Compliance guidelines have been designed to ensure the presentation of all proposals in an organized and easy-to-follow manner. Peer reviewers expect to see a consistent, prescribed format for each proposal. ***Failure to adhere to formatting guidelines ([Appendix 4](#)) makes proposals difficult to read, may be perceived as an attempt to gain an unfair competitive advantage, and may result in proposal rejection.***

The following will result in administrative rejection of the entire proposal:

- All attached files are not in PDF, except for the pre-application file.
- Project Narrative exceeds page limit.
- Project Narrative is missing.
- Margins are less than specified in the formatting guidelines.
- Print Area exceeds that specified in the formatting guidelines.
- Spacing is less than specified in the formatting guidelines.
- Innovation Statement is missing.
- Impact Statement is missing.
- Clinical Protocol is missing (if applicable).
- Required supporting documentation is missing.
- Biographical sketches are missing.
- Budget justification is missing.
- FY07 NFRP IP members are included in any capacity in the pre-application process, the proposal, budget, and any supporting document. A list of the FY07 NFRP IP members may be found at <http://cdmrp.army.mil/nfrp/panel07>

For any other sections of the proposal with a defined page limit, pages exceeding the specified limit will be removed and not forwarded for peer review.

Material submitted after the submission deadline, unless specifically requested by the Government, will not be forwarded for peer review.

IX. APPENDICES

APPENDIX 1

ELIGIBILITY INFORMATION

To protect the public interest, the Federal Government ensures the integrity of Federal programs by only conducting business with responsible recipients. The US Army Medical Research and Materiel Command (USAMRMC) uses the Excluded Parties List System (EPLS) to exclude recipients ineligible to receive Federal awards. The EPLS is online at <http://epls.arnet.gov>. (Reference Department of Defense Grant and Agreement Regulations [DODGAR] 25.110.)

All individuals, regardless of ethnicity, nationality, or citizenship status, may apply as long as they are employed by, or affiliated with, an eligible institution.

Eligible Institutions: USAMRMC makes awards to institutions; eligible institutions include for-profit, nonprofit, public, and private organizations, such as universities, colleges, hospitals, laboratories, and companies.

Historically Black Colleges and Universities/Minority Institutions (HBCU/MI): A Department of Defense goal is to allocate funds for the Congressionally Directed Medical Research Programs (CDMRP) peer reviewed research to fund proposals from HBCU/MI. This provision is based on guidance from Executive Orders.¹ Proposals are assigned HBCU/MI status when the submitting institution is so designated by the Department of Education on the date the program announcement is released. The most current Department of Education list is posted on the CDMRP website at <http://cdmrp.army.mil/spp> under “Minority Institutions.”

Government Agencies: Local, state, and Federal Government agencies are eligible to the extent that proposals do not overlap with their fully funded intramural programs. Federal agencies are expected to explain how their proposals do not overlap with their intramural programs.

Duplicate Submissions: Submission of the same research project to different award mechanisms within the same program or to other CDMRP programs is discouraged. The Government reserves the right to reject duplicative proposals.

¹Executive Orders 12876, 12900, and 13021

APPENDIX 2

GRANTS.GOV INSTRUCTIONS

A. Public Law 106-107

Proposals requesting funding from the CDMRP will be submitted through the Federal Government's single entry portal, [Grants.gov](https://www.grants.gov), in compliance with Public Law 106-107 (P.L. 106-107). The Federal Financial Assistance Management Improvement Act of 1999, also known as P.L. 106-107, was enacted in November 1999. The purposes of the P.L. 106-107 are to (1) improve the effectiveness and performance of Federal financial assistance programs, (2) simplify Federal financial assistance application and reporting requirements, (3) improve the delivery of services to the public, and (4) facilitate greater coordination among those responsible for delivering services.

Individual program announcements and required forms can also be found on this website. As in previous years, award mechanisms requiring pre-applications including Letter of Intent Narrative, preproposals, and/or nominations will be submitted through the CDMRP eReceipt system at <https://cdmrp.org>.

B. Grants.gov

Grants.gov is an E-Government initiative to provide a simple, unified electronic storefront for interactions between Principal Investigators (PIs) and the Federal agencies that manage grant funds. The grant community, including state, local, and tribal governments, academia and research institutions, commercial firms and not-for-profits, can access the annual grant funds available across the Federal Government through one website, Grants.gov. In addition to simplifying the grant application process, Grants.gov also creates avenues for consolidation and best practices within each grant-making agency.

In compliance with P.L. 106-107, the USAMRMC requires proposals submitted in response to the program announcement to be submitted through Grants.gov. This requires that organizations register in Grants.gov to submit proposals through the Grants.gov portal. Individual PIs/Project Directors DO NOT register; however, the AOR is required to register. The registration process can take several weeks, so please register as soon as possible.

The following actions are required as part of the registration process. ***The registration process can take several weeks.*** If you do business with the Federal Government on a continuing basis, it is likely you have already completed some of the actions, e.g., obtaining a DUNS number or registration in CCR. Detailed information, automated tools, and checklists are available at http://www.grants.gov/applicants/get_registered.jsp

1. Applicant Organization Must Have a Data Universal Number System (DUNS) Number

An organization will need a DUNS number. A DUNS number is a unique nine-character identification number provided by the commercial company Dun & Bradstreet (D&B)

(<http://fedgov.dnb.com/webform/displayHomePage.do>). If an organization does not have a DUNS number, an authorized official of the organization can request one by calling 866-705-5711 or online via web registration (<http://fedgov.dnb.com/webform/index.jsp>). Organizations located outside of the United States can request and register for a DUNS number online via web registration.

2. Applicant Organization Must be Registered with the Central Contractor Registry (CCR)

An organization must be registered with CCR before submitting a grant application through Grants.gov or receiving an award from the Federal Government. CCR validates institution information and electronically shares the secure and encrypted data with Federal agencies' finance offices to facilitate paperless payments through electronic funds transfer. ***CCR registrations have an expiration – please verify the status of your organization's CCR registration well in advance of the proposal submission deadline.***

You can register by calling the CCR Assistance Center at 888-227-2423 or register online at <http://www.ccr.gov>. Collecting the information (Employer Identification Number [EIN] or Tax Identification Number [TIN]) can take 1-3 days. If you have the necessary information, online registration will take about 30 minutes to complete, depending upon the size and complexity of your organization. Allow a minimum of 5 business days to complete the entire CCR registration. If your organization does not have either an EIN or TIN, allow at least 2 weeks to obtain the information from the Internal Revenue Service (IRS).

Foreign organizations must obtain a CAGE code prior to registering with the CCR. A CAGE code can be obtained by calling 269-961-7766 or online at (http://www.dlis.dla.mil/Forms/Form_AC135.asp).

3. Authorized Organizational Representative (AOR) must be registered with Grants.gov

Before submitting a proposal, an organization representative needs to register to submit on behalf of the organization at Grants.gov - <https://apply.grants.gov/OrcRegister>. An organization's E-Business point of contact (POC), identified during CCR registration, must authorize someone to become an AOR. This safeguards the organization from individuals who may attempt to submit proposals without permission. The AOR's username and password serve as "electronic signatures" when an application is submitted on Grants.gov. ***Note: In some organizations, a person may serve as both an E-Business POC and an AOR.***

An AOR must first register with the Grants.gov credential provider at <https://apply.grants.gov/OrcRegister> to obtain a username and password. The AOR must then register with Grants.gov for an account at <https://apply.grants.gov/GrantsgovRegister>. Once an AOR has completed the Grants.gov process, Grants.gov will notify the E-Business POC for assignment of user privileges. When an E-Business POC approves an AOR, Grants.gov will send the AOR a confirmation email.

Form	Attachment	Action
SF-424 (R&R) Application for Federal Assistance Form	Pre-application XML File	Enter the appropriate information in data fields
Attachments Form	Project Narrative (Narrative.pdf)	Upload as Attachment 1
	Supporting Documentation (Supporting.pdf)	Upload as Attachment 2
	Technical and Public Abstracts (Abstracts.pdf)	Upload as Attachment 3
	Statement of Work (SOW) (SOW.pdf)	Upload as Attachment 4
	Innovation Statement (Innovation.pdf)	Upload as Attachment 5
	Impact Statement (Impact.pdf)	Upload as Attachment 6
	Federal Agency Financial Plan (if applicable) (FedFin.pdf)	Upload as Attachment 7
	Clinical Protocol (if applicable) (Protocol.pdf)	Upload as Attachment 8
Research & Related Senior/Key Person Profile (Expanded) Form	PI Biographical Sketch (Biosketch_LastName.pdf)	Attach to PI Biographical Sketch field
	PI Current/Pending Support (Support_LastName.pdf)	Attach to PI Current & Pending Support field
	Key Personnel Biographical Sketches (Biosketch_LastName.pdf)	Attach to Biographical Sketch field for each senior/key person
	Key Personnel Current/Pending/Support (Support_LastName.pdf)	Attach to Current & Pending Support field for each senior/key person
Research & Related Budget Form	Budget Justification for entire performance period (Justification.pdf)	Attach to Section K in budget period one
Research & Related Project/Performance Site Location(s) Form		Enter the appropriate information in data fields
R&R Subaward Budget Attachment(s) Form (if applicable)	Individual subaward budgets and justifications (Justification_LastName.pdf)	Attach a separate budget with justification for each subaward

During award negotiations, the Certificate of Environmental Compliance, Principal Investigator Safety Program Assurance, regulatory documents related to human and animal studies, and other documents will be requested from the PIs. At that time, the negotiated indirect rate agreement,

Certifications and Assurances for Assistance Agreements, and Representations for Assistance Agreements will be requested from the AOR.

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

This form is required for each application. All appropriate information must be entered into this form to allow for auto-population of all subsequent forms in this application package. The form is self-explanatory, with the following exceptions:

- **Applicant Identifier** box should be filled in with the submitting Institution's Control Number.
- **State Application Identifier** is not applicable.
- **Block 1 – Type of Submission.** For all submissions the “Application” box should be chosen. For substantial changes that must be made after the original submission, the complete application package must be resubmitted. In these cases, the “Changed/Corrected Application” box must be checked and the Grants.gov tracking number must be entered in Block 4 - Federal Identifier.
- **Block 3 – Date Received by State** is not applicable
- **Block 4 – Federal Identifier Box.** This box will be populated by Grants.gov for an original application, but the Grants.gov tracking number (i.e., the Federal Identifier Number assigned to the original application) must be manually entered for changed or corrected applications.
- **Block 13 – Proposed Project.** The start date should be 9 months to a year from deadline for proposal submission for this award mechanism.
- **Block 14 – Congressional Districts Of.** If applying from a foreign institution enter “00-000” for both applicant and project.
- **Block 17 – Is Application Subject to Review by State Executive Order 12372 Process?** Choose option, b. NO, program is not covered by E.O.12372.
- **Block 19 – Authorized Representative.** The “signature of AOR” is not an actual signature and is automatically completed upon submission of the electronic application package. *Hard copies of applications will not be accepted.*
- **Block 20 – Pre-application** box and attachment should be used to attach the pre-application file associated with this proposal. This pre-application file must be downloaded from the CDMRP eReceipt system. *Please do not convert this XML file to PDF.*

B. Attachments Form

The following information must be included as attachments to this form in accordance with the [formatting guidelines](#) specified in [Appendix 4](#):

Attachment 1: Project Narrative: 20-page limit. The Project Narrative is the main body of the proposal. The Project Narrative must be submitted in a single PDF file named “Narrative.pdf” in accordance with the [formatting guidelines](#) specified in [Appendix 4](#). *The*

inclusion of preliminary data relevant to neurofibromatosis research and the proposed project is required.

Describe the proposed project using the following outline:

- 1. Background:** Present the ideas and reasoning behind the proposed work. Cite relevant literature.
- 2. Preliminary Data (required):** Provide pertinent data to support the necessity, feasibility, and potential for success of the proposed project.
- 3. Hypothesis or Objective:** State the hypothesis to be tested or the objective to be reached.
- 4. Specific Aims:** Concisely explain the project's specific aims to be funded by this proposal.
- 5. Research Strategy:** Describe the experimental design, methods, and analyses including appropriate controls in sufficient detail for analysis. 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.

The 20-page limit of the Project Narrative is inclusive of any figures, tables, graphs, photographs, diagrams, chemical structures, pictures, pictorials, cartoons, and other relevant information needed to judge the proposal.

Attachment 2: Supporting Documentation. Upload these sections as a single PDF file named "Supporting.pdf" in accordance with the [formatting guidelines](#) specified in [Appendix 4](#).

a. References Cited and Acronyms and Symbol Definitions: No page limit.

- **References Cited:** List all relevant references 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). The inclusion of Internet URLs to references is encouraged.
- **Acronyms and Symbol Definitions:** Starting on a new page titled "Acronyms and Symbol Definitions," provide a glossary of acronyms and symbols.

b. Facilities & Other Resources: No page limit. Describe the facilities available for performance of the proposed request and any additional facilities or equipment proposed for acquisition at no cost to the USAMRMC. Indicate if Government-owned facility or equipment is proposed for use. Reference should be made to the original or present contract under which the facilities or equipment items are now accountable. There is no form for this information.

c. Description of Existing Equipment: Include a description of existing equipment to be used for the proposed research project.

d. Publications and/or Patent Abstracts (five-document limit): Five-document limit. Include up to five relevant publication reprints and/or patent abstracts. A patent abstract should provide a non-proprietary description of the patent application. A maximum of five publication reprints and/or patent abstracts is allowed; extra items will not be reviewed.

e. Letters of Institutional Support: Provide letter(s) of institutional support, signed by the Department Chair or appropriate institutional official that reflects the laboratory space, equipment, and other resources available to the PI for this project. The letter should also indicate the extent to which the PI will be relieved of academic or administrative responsibilities and allowed to pursue his or her research goals.

f. Letters of Collaboration (if applicable): Provide a signed letter from each collaborating individual or institution. **Optional Collaborator(s):** For proposals requesting the higher level of funding, the collaborator must clearly articulate in the letter how each of the criteria outlined in [Section II.A](#) is met.

g. Intellectual and Material Property Plan (if applicable): No page limit. Provide a plan for resolving intellectual and material property issues among participating institutions.

Submitting material that was not requested may be construed as an attempt to gain a competitive advantage and such material will be removed; submitting such material may be grounds for administrative rejection of the proposal. *This section is not intended for additional figures, tables, graphs, photographs, diagrams, chemical structures, pictures, pictorials, cartoons, or other information needed to judge the proposal.*

Attachment 3: Technical and Public Abstracts. The technical and public abstracts must be submitted in a single PDF file named “Abstracts.pdf” in accordance with the [formatting guidelines](#) specified in Appendix 4. Abstracts of all funded proposals will be posted on the CDMRP website at <http://cdmrp.army.mil>. Proprietary or confidential information should *not* be included in either the technical or the public abstract.

Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed in either abstract.

Technical Abstract: One-page limit. Use the outline below.

- Background: Present the ideas and reasoning behind the proposed work.
- Objective/Hypothesis: State the objective/hypothesis to be tested. Provide evidence or rationale that supports the objective/hypothesis.
- Specific Aims: State the specific aims of the study.
- Study Design: Briefly describe the study design including appropriate controls.

Public Abstract: One-page limit. Start on a new page. The public abstract is an important component of the proposal review process because it addresses issues of particular interest to the consumer advocate community.

- Describe the scientific objective and rationale for the proposal in a manner readily understandable by non-scientists.
 - Do not duplicate the technical abstract.
- Describe the ultimate applicability of the research.
 - What types of 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 consumer-related outcome?
- If the research is too basic for clinical applicability, describe the interim outcomes.
- What are the likely contributions of this study?
- How will the research enhance this or other studies being conducted?

Attachment 4: Statement of Work (SOW): Two-page limit. The SOW must be submitted as a single PDF file named “SOW.pdf” in accordance with the [formatting guidelines](#) specified in [Appendix 4](#). The Statement of Work is a concise restatement of the research proposal that outlines, step by step, how each major goal or objective of the proposed research/services will be accomplished during the period for which the USAMRMC will provide financial support. When a proposal requesting funding as part of a larger study is submitted, the proposal's Statement of Work must include aims to be funded by this proposal. The Statement of Work should:

- Describe the work or training plan to be accomplished as tasks (tasks may relate to specific aims);
- For collaborative efforts, associate each task with the investigator responsible for performing the work;
- Identify the timeline and milestones for the work over the period of performance for the proposed effort;
 - Allow at least 6 months for regulatory review and approval processes for studies involving human subjects;
 - Allow 2 to 4 months for regulatory review and approval processes for animal studies;
- For animal and human studies (including tissue, anatomical, or biological substances), indicate the sample size projected or required for each task;
- Identify methods; and
- Identify outcomes, products, and deliverables for each phase of the project.

Attachment 5: Innovation Statement: One-half-page limit. The Innovation Statement must be submitted as a single PDF file named “Innovation.pdf”, in accordance with the

[formatting guidelines](#) specified in [Appendix 4](#). Summarize how the proposal is innovative. The following examples of ways in which proposals may be innovative, *although not all-inclusive*, are intended to help PIs frame the innovative features of their proposals:

- Study concept - Investigation of a novel idea and/or research question.
- Research method or technology - Use of novel research methods or new technologies, including technology development, to address a research question.
- Clinical interventions - Use of a novel method or technology for preventing, detecting, diagnosing, or treatment.
- Existing methods or technologies - Application or adaptation of existing methods or technologies for novel research or clinical purposes, or for research or clinical purposes that differ fundamentally from those originally intended.

Investigating the next logical step as an extension of previous work or incremental advancement on published data is not considered innovative.

The Innovation Statement will be available for both peer and programmatic review.

Attachment 6: Impact Statement: One-half-page limit. The impact statement must be submitted in a single PDF file named “Impact.pdf”, in accordance with the [formatting guidelines](#) specified in [Appendix 4](#). State explicitly how the proposed work will have an impact on research or patient care. Describe how the combination of innovation and the expected results of the proposal will potentially contribute to the goals of detection, diagnosis, or treatment of neurofibromatosis and/or Schwannomatosis or quality of life for patients.

The Impact Statement will be available for both peer and programmatic review.

Attachment 7: Federal Agency Financial Plan (if applicable). Proposals from Federal agencies *must* provide a plan delineating how all funds will be obligated by September 30, 2008, and how funds will be available to cover research costs over the entire award period. The plan must include the funding mechanism(s) that will be used to carry over funds between fiscal years, such as through agreements with foundations, non-Federal institutions, and universities. The Federal Agency Financial Plan must be submitted as a single PDF file named “FedFin.pdf”, in accordance with the [formatting guidelines](#) specified in [Appendix 4](#).

Attachment 8: Clinical Protocol (if applicable): No page limit. If the work proposed includes a clinical trial, a clinical [protocol](#) must be submitted addressing the required components described in [Appendix 7](#). The proposed clinical protocol must be submitted in a single PDF file named “Protocol.pdf”, in accordance with the [formatting guidelines](#) specified in [Appendix 4](#). Clinical trials will be evaluated according to the criteria described in [Section VII.B](#)

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

Include the requested information for each senior/key person proposed on the project. Each attachment must be a single PDF file, in accordance with the [formatting guidelines](#).

1. PI Biographical Sketches: Four-page limit per individual. Suggested format is provided as [Form 1](#). The biosketch must be saved as “Biosketch_LastName.pdf” where “LastName” is the last name of the PI.

2. PI Current/Pending Support: No page limit. Current/Pending Support for the PI must be submitted as a PDF file in accordance with the [formatting guidelines](#) specified in [Appendix 4](#). This file must be named “Support_LastName.pdf” where “LastName” is the last name of the PI.

Proposals submitted under this program announcement should not duplicate other funded research projects.

For all existing and pending research projects involving the PI and key personnel include:

- Title
- Time commitments
- Supporting agency
- Name and address of the Funding Agency's Procuring Contracting/Grants Officer
- Performance period
- Level of funding
- Brief description of the project's goals
- List of the specific aims.

Provide justification for the requested support and identify where the projects overlap or parallel. If no current support exists, enter “None.” Updated current and pending support will be required during award negotiations.

3. Key Personnel Biographical Sketches: Four-page limit per individual. Suggested format is provided as [Form 1](#). The biosketch must be saved as “Biosketch_LastName.pdf” where “LastName” is the last name of the appropriate individual.

4. Key Personnel’s Current/Pending Support: No page limit. Current/Pending Support for each individual must be submitted as a PDF file in accordance with the [formatting guidelines](#) specified in [Appendix 4](#). This file must be named “Support_LastName.pdf” where “LastName” is the last name of the appropriate individual. Refer to “PI’s Current/Pending Support” above for the content of this document, except substituting individual information for that of the PI.

D. Research & Related Budget Form

An estimate of the total research project cost, with a breakdown by category and year, must accompany each proposal. All costs must be entered in US dollars. Recipients performing research outside of the United States should include the cost in local currency, the rate used for converting to US dollars, and justification/basis for the conversion rate used.

The following cost regulations and principles must be adhered to budget calculations:

- **Subcontracting Indirect Costs:** When the applicant institution calculates their indirect costs, they can only calculate indirect costs on the first \$25,000 of each subaward.
- **Maximum Obligation:** The USAMRMC does not amend grants to provide additional funds for such purposes as reimbursement for unrecovered indirect costs resulting from the establishment of final negotiated rates or for increases in salaries, fringe benefits, and other costs.
- **Cost Regulations and Principles:** Costs proposed must conform to the following regulations and principles:
 - **Commercial Firms:** Federal Acquisition Regulation (FAR) Part 31 and Defense FAR Supplement Part 31 (<http://farsite.hill.af.mil>), Contract Cost Principles and Procedures.
 - **Educational Institutions:** OMB Circular A-21, Cost Principles for Educational Institutions.
 - **Nonprofit Organizations:** OMB Circular A-122, Cost Principles for Nonprofit Organizations. OMB Circular A-133, Audits of Institutions of Higher Education and Other Nonprofit Organizations.
 - **State, Local, and Tribal Governments:** OMB Circular A-87, Cost Principles for State, Local, and Indian Tribal Governments.
 - **Cost of Preparing Proposals:** The cost of preparing proposals in response to this program announcement is not considered an allowable direct charge to any resultant contract, grant, or cooperative agreement. It is, however, an allowable expense to the bid and proposal indirect cost specified in FAR 31.205-18, and OMB Circulars A-21 and A-122.

Section A & B – Senior/Key Person and Other Personnel: The basis for labor costs should be predicated upon actual labor rates or salaries. Budget estimates may be adjusted upward to forecast salary or wage cost-of-living increases that will occur during the period of performance. The proposal should separately identify and explain the ratio applied to base salary/wage for cost-of-living adjustments and merit increases in the budget justification (Section K).

The qualifications of the PI and the amount of time that he or she and other professional personnel will devote to the research are important factors in selecting research proposals for funding. For each key staff member identified on the budget form, list the percentage of each appointment to be spent on this project.

Section C – Equipment Description: It is DOD policy that all commercial and nonprofit recipients provide the equipment needed to support proposed research. In those rare cases where specific additional equipment is approved for commercial and nonprofit organizations, such approved cost elements shall be separately negotiated.

An itemized list of permanent equipment is required, showing the cost for each item. Permanent equipment is any article of nonexpendable tangible property having a useful life

of more than 2 years and an acquisition cost of \$5,000 or more per unit. The justification for the cost of each item of equipment included in the budget must be disclosed in the budget justification (Section K) to include:

- **Vendor Quote:** Show name of vendor and number of quotes received and justification if intended award is to other than the lowest bidder.
- **Historical Cost:** Identify vendor, date of purchase, and whether or not cost represented the lowest bid. Include reason(s) for not soliciting current quotes.
- **Estimate:** Include rationale for estimate and reasons for not soliciting current quotes.
- **Special test equipment to be fabricated by the contractor for specific research purposes and its cost.**
- **Standard equipment to be acquired and modified to meet specific requirements, including acquisition and modification costs; list separately.**
- **Existing equipment to be modified to meet specific research requirements, including modification costs. Do not include as special test equipment those items of equipment that, if purchased by the contractor with contractor funds, would be capitalized for Federal income tax purposes.**
- **Title of equipment or other tangible property purchased with Government funds may be vested in institutions of higher education or with nonprofit organizations, whose primary purpose is the conduct of scientific research. Normally, the title will vest in the recipient if vesting will facilitate scientific research performed by the institution or organization for the Government.**
- **Commercial organizations are expected to possess the necessary plant and equipment to conduct the proposed research. Equipment purchases for commercial organizations will be supported only in exceptional circumstances.**

Section D – Travel

- **Travel costs to attend one scientific/technical meeting per year.** Costs should not exceed \$1,800.
- **Travel costs associated with the execution of the proposed work.** If applicable, reasonable costs for travel between collaborating institutions should be included and are not subject to the yearly \$1,800 limitation on travel to meetings. Justification for these travel costs should be provided. Travel outside the United States, including between foreign countries, requires prior approval from USAMRAA 90 days before travel.
- **Travel to CDMRP-required meetings** (if applicable) ([Section II.C](#)). Costs should be reasonable.

Section E – Participant/Trainee Support Costs: This section is self-explanatory.

Section F – Other Direct Costs (as applicable)

Section F.1 – Materials and Supplies (Consumables): The justification (to be included in Section K) supporting material and supply (consumable) costs should include a general description of expendable equipment and supplies. If animals are to be purchased, state the species, strain (if applicable), and the number to be used. If human cell lines are to be purchased, state the source and the description.

Section F.2 – Publication Costs: This section is self-explanatory.

Section F.3 – Consultant Services: Regardless of whether funds are requested, the justification (to be included in Section K) should include the names and organizational affiliations of all consultants. State the daily consultant fee, travel expenses, nature of the consulting effort, and why consultants are required for the proposed research project.

Section F.4 – ADP/Computer Services: This section is self-explanatory.

Section F.5 – Subaward/Consortium/Contractual Costs: On the project's Research and Related Budget Form, enter the total funds requested for (1) all subaward/consortium organization(s) proposed for the project and (2) any other contractual costs proposed for the project.

Section F.6 – Equipment or Facility Rental/User Fees: This section is self-explanatory.

Section F.7 – Alterations and Renovations: Not allowable.

Sections F.8–F.10 – Research-Related Subject Costs: Include itemized costs of subject participation in the research study. These costs are strictly limited to expenses specifically associated with the proposed study. The USAMRMC will not provide funds for ongoing medical care costs that are not related to a subject's participation in the research study.

Sections F.8–F.10 – Other Direct Costs (if applicable): Include other anticipated direct costs that are not specified elsewhere in the budget. Unusual or expensive items should be fully explained and justified in Section K.

Section G – Direct Costs: This section is self-explanatory. All direct and indirect costs of any subaward must be included in the total direct costs of the primary award.

Section H – Indirect Costs (overhead, general and administrative, and other): The most recent rates, dates of negotiation, base(s), and periods to which the rates apply should be disclosed along with a statement identifying whether the proposed rates are provisional or fixed. If negotiated forecast rates do not exist, provide sufficient detail in the budget justification (Section K) regarding a determination that the costs included in the forecast rate are allocable according to applicable FAR/DFARS or OMB Circular provisions. Commercial firms can also visit www.dcaa.mil for additional information on indirect rates. Disclosure should be sufficient to permit a full understanding of the content of the rate(s) and how it was established. When the applicant institution calculates their indirect costs, they can only calculate indirect costs on the first \$25,000 of each subaward.

As a minimum, justification for indirect costs should identify:

- All individual cost elements included in each forecast rate;
- The basis used to prorate indirect expenses to cost pools, if any;
- How each rate was calculated; and
- The distribution basis of each developed rate.

Section I – Total Direct and Indirect Costs: This section is self-explanatory.

Section J – Fee: A profit or fixed fee is not allowable on grants or cooperative agreements. If a profit/fee is negotiated, a contract will be awarded. Any fixed fee applied to the research project must be listed and any claimed Facilities Capital Cost of Money supported by **DD Form 1861** (www.dtic.mil/whs/directives/infomgt/forms/forminfo/forminfo2192.html) must be submitted with the proposal.

Section K – Budget Justification: The Budget Justification for the entire performance period must be attached as a PDF file named “Justification.pdf” to the Research & Related Budget – Section K (under budget period one). Organizations must provide sufficient detail and justification so that the Government can determine the proposed costs to be allocable and reasonable for the proposed research effort.

The budget justification must include information for all budget periods. This file must be uploaded for budget period one before you will be allowed to access subsequent budget periods.

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

Indicate the primary site where the work will be performed. If a portion of the work will be performed at any other site(s), include the name and address for each collaborating location in the data fields provided. If more than eight performance site locations are proposed, provide the requested information in a separate file and attach to this form. Please note that each additional research site requesting funds will require a subcontract budget.

F. R&R Subaward Budget Attachment(s) Form (optional form; use if applicable)

Please note that the files to be attached to the R&R Subaward Budget Attachment(s) Form must be PureEdge documents. Extract an R&R Subaward Budget Attachment for each subaward, using the button provided on this form. Save each attachment to your computer and complete the form(s).

The Budget Justification for each subaward must be attached as a PDF file named “Justification_LastName.pdf” (where “LastName” is the investigator of the Subaward) to the Research & Related Budget – Section K for that subaward. Each subaward budget justification must include information for all budget periods. This file must be uploaded for budget period one before you will be allowed to access subsequent budget periods for the subaward. Once all subaward budget files are completed, attach all subaward budget file(s) for this application to the R&R Subaward Budget Attachment(s) Form.

The DUNS number for each subaward site should be included on this form.

A description of services or materials that are to be awarded by subcontract or subgrant is required. Organizations must provide sufficient detail and justification so that the Government can determine the proposed costs to be allocable and reasonable for the proposed research effort. The following information must be provided on subawards totaling \$10,000 or more:

- Identification of the type of award to be used (e.g., cost reimbursement, fixed price);
- Identification of the proposed subcontractor or subgrantee, if known, and an explanation of why and how the subcontractor or subgrantee was selected or will be selected;
- Whether the award will be competitive and, if noncompetitive, rationale to justify the absence of competition; and
- The proposed acquisition price.
- The applicant's cost or price analysis for the subgrant or subcontract proposed price (applicable only if the award exceeds \$500,000).

If the resultant award is a contract that exceeds \$500,000 and the applicant is a large business or an educational institution (other than a Historically Black College or University/Minority Institution), the applicant is required to submit a subcontracting plan for small business and small disadvantaged business concerns, in accordance with FAR 19.7. A mutually agreeable plan will be incorporated as part of the resultant contract.

APPENDIX 4

FORMATTING GUIDELINES

The proposal must be clear and legible and conform to the formatting guidelines described below. The font size, spacing, page size, and margins may differ between the word processing, PDF, and printed versions. These guidelines apply to the document properties of the electronic version of the PDF file(s) as viewed on a computer screen.

- **Document Format:** All attachments must be in PDF, except for the pre-application file (XML file) attached to block 20 of SF-424.
- **Font Size:** 12 point or larger.
- **Font Type:** Times New Roman is strongly recommended.
- **Spacing:** No more than six lines of type within a vertical inch (2.54 cm).
- **Page Size:** No larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).
- **Margins:** Must be at least 0.5 inch (1.27 cm) in all directions.
- **Print Area:** 7.5 inches x 10.0 inches (approximately 19.05 cm x 25.40 cm).
- **Color, High-Resolution, and Multimedia Objects:** Proposals may include color, high-resolution, or multimedia objects (e.g., MPEG, WAV, or AVI files) embedded in the PDF files; however, these objects must not exceed 15 seconds in length and a size of 10 MB. Since some reviewers work from black and white printed copies, Principal Investigators may wish to include text in the proposal directing the reviewer to the electronic file for parts of the proposal that may be difficult to interpret when printed in black and white. Photographs and illustrations must be submitted in JPEG format; bit map or TIFF formats are not allowed.
- **Internet URLs:** URLs directing reviewers to websites containing additional information about the proposed research are not allowed in the proposal or its components. Inclusion of such URLs may be perceived as an attempt to gain an unfair competitive advantage. Links to publications referenced in the proposal are encouraged.
- **Language:** English.
- **Headers and Footers:** Should not be used.
- **Page Numbering:** Should not be used.

All attachments that require signatures must be filled out, printed, signed, scanned, and then uploaded as a PDF file.

APPENDIX 5

AWARD ADMINISTRATION INFORMATION

A. Award Notices

Each Principal Investigator (PI) will receive notification of the award status of his or her proposal. A copy of the peer review summary statement, if applicable, will be posted to the Congressionally Directed Medical Research Programs (CDMRP) eReceipt system. PIs can expect to receive this notification approximately 4 weeks after programmatic review.

B. Administrative Requirements

Awards are made to organizations, not individuals. The PI must submit a proposal through, and be employed by or affiliated with, a university, college, nonprofit research institution, commercial firm, or Government agency (including military laboratories) to receive support. A prospective recipient must meet certain minimum standards pertaining to institutional support, financial resources, record of performance, integrity, organization, experience, operational controls, facilities, and conformance with safety and environmental statutes and regulations (OMB Circular A-110 and Department of Defense [DOD] Grant and Agreement Regulations) to be eligible for an award. Any organization requesting receipt of an award through this program announcement must be registered in the Central Contractor Registration (CCR) database. Access to the CCR online registration is through the CCR homepage at <http://www.ccr.gov>.

If allowed, a change in institutional affiliation will require the investigator to resubmit the entire proposal packet through his or her new institution to include any regulatory documentation that may require protocols, etc., to be approved for the new institution. The investigator's original institution must agree to relinquish the award. Any delay in the submission of the new information will result in a delay in contracting and regulatory review and a subsequent delay in resuming work on the project.

C. Award Negotiation

Award negotiation consists of discussions, reviews, and justifications of critical issues involving the US Army Medical Research Acquisition Activity (USAMRAA). A Contract Specialist and/or representative from the USAMRAA will contact the Contract Representative authorized to negotiate contracts and grants at the PI's institution. Additional documentation and justifications related to the budget may be required as part of the negotiation process.

The award start date will be determined during the negotiation process.

D. Disclosure of Proprietary Information outside the Government

By submitting a proposal, the PI understands that proprietary information may be disclosed outside the Government for the sole purpose of technical evaluation. The US Army Medical Research and Materiel Command (USAMRMC) will obtain a written agreement from the evaluator that proprietary information in the proposal will only be used for evaluation purposes

and will not be further disclosed or used. Funded proposals may be subject to public release under the Freedom of Information Act; proposals that are not selected for funding are not subject to public release.

E. Government Obligation

PIs are cautioned that only an appointed Contracting/Grants Officer may obligate the Government to the expenditure of funds. No commitment on the part of the Government to fund preparation of a proposal or to support research should be inferred from discussions with a technical project officer. PIs who, or organizations that, make financial or other commitments for a research effort in the absence of an actual legal obligation signed by the USAMRAA Contracting/Grants Officer do so at their own risk.

F. Information Service

PIs may use the technical reference facilities of the National Technical Information Service (www.ntis.gov), for the purpose of surveying existing knowledge and avoiding needless duplication of scientific and engineering effort and the expenditure thereby represented. All other sources also should be consulted to the extent practical for the same purpose.

G. Inquiry Review Panel

PIs may submit a letter of inquiry to the USAMRMC in response to funding decisions made for a given proposal. Members of the CDMRP staff, the USAMRMC Judge Advocate General staff, and USAMRAA Grants Officers constitute an Inquiry Review Panel and review each inquiry to determine whether factual or procedural errors in either peer or programmatic review have occurred, and if so, what action should be taken.

H. Title to Inventions and Patents

In accordance with the Bayh-Dole Act (35 USC 200 et seq.²), title to inventions and patents resulting from such Federally funded research may be held by the grantee or its collaborator, but the US Government shall, at a minimum, retain nonexclusive rights for the use of such inventions. An investigator must follow the instructions in the assistance agreement concerning license agreements and patents.

I. J-1 Visa Waiver

It is the responsibility of the awardee to ensure that the research staff is able to complete the work without intercession by the DOD for a J-1 Visa Waiver on behalf of a foreign national in the United States under a J-1 Visa.

² Title 35, United States Code, Sections 200 et seq.

APPENDIX 6

REGULATORY REQUIREMENTS AND REVIEWS

The Principal Investigator (PI) may not use, employ, or subcontract for the use of any human subjects, human biological substances, or laboratory animals until applicable regulatory documents are requested, reviewed, and approved by the US Army Medical Research and Materiel Command (USAMRMC).

Concurrent with the US Army Medical Research Acquisition Activity (USAMRAA) negotiation, the Office of Surety, Safety and Environment will review the Certificate of Environmental Compliance and the Principal Investigator Safety Program Assurance form to be submitted upon request. The applicable USAMRMC regulatory office will review documents related to research involving human subjects, human anatomical substance use, and animal use which should be submitted upon request to ensure that Department of Defense (DOD) regulations are met.

A. Certificate of Environmental Compliance

The Certificate of Environmental Compliance will be requested at award negotiations. If multiple research sites/institutions are funded in the proposal, then a Certificate of Environmental Compliance for each site will also be requested.

B. Safety Program Documents

The Principal Investigator Safety Program Assurance form will be requested at award negotiations.

A Facility Safety Plan is required; it will be requested at award negotiations. A Facility Safety Plan from the PI's institution may have been received previously and approved by the USAMRMC. A list of institutions that have approved Facility Safety Plans can be found on the USAMRMC website at https://mrmc.amedd.army.mil/docs/rcq/sohd/Facility_Safety_Plan_Approved_Institutions.pdf. If the PI's institution is not listed on the website, contact the institution's Facility Safety Director/Manager to initiate completion of the institution-based Facility Safety Plan. Specific requirements for the Facility Safety Plan can be found at <https://mrmc.detrick.army.mil/docs/rcq/FY02FSPAppendix.doc>.

If multiple research sites/institutions are funded in the proposal, a Facility Safety Plan for each site/institution not listed in the aforementioned website will be requested at a later date.

C. Research Involving Animal Use

Specific documents relating to the use of animals in the proposed research will be requested by the Congressionally Directed Medical Research Programs (CDMRP) if the proposal is selected for funding (these documents should not be submitted with the proposal). The Animal Care and Use Review Office (ACURO), a component of the USAMRMC Office of Research Protections (ORP; formerly Regulatory Compliance and Quality), must review and approve all animal use

prior to the start of working with animals. PIs must complete and submit the animal use appendix titled “Research Involving Animals”, which can be found on the ACURO website <https://mrmc-www.army.mil/rodorpaurd.asp>. Allow 2 -4 months for regulatory review and approval processes for animal studies.

Specific requirements for research involving animals can be found at <https://mrmc.detrick.army.mil/docs/rcq/FY05AnimalAppendix.doc>.

D. Research Involving Human Subjects or Biological Substances

For all other studies, documents related to the use of human subjects or substances will be requested by the CDMRP if the proposal is selected for funding (these documents should not be submitted with the proposal). However, if the proposal requests support for a clinical trial the PI is required to submit a clinical protocol in addition to the proposal by the receipt deadline.

In addition to local Institutional Review Board (IRB) approval to conduct research involving human subjects or biological substances, a second tier of human subjects regulatory review and approval is required by the DOD, which is conducted by the USAMRMC ORP, Human Research Protection Office (HRPO). 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. The recommendations of the second-tier HRPO review must be considered by the local IRB; therefore, to expedite the review of research involving human subjects or biological substances, PIs should not submit documentation to their local IRB until they have received an initial review by HRPO.

Allow at least 6 months for regulatory review and approval processes for studies involving human subjects.

1. Requirements: Specific requirements for research involving human subjects or human biological substances can be found at <https://mrmc.amedd.army.mil/rodorptoolkit.asp>.

Personnel involved in human subjects research must have appropriate instruction in the protection of human subjects. Documentation confirming that this instruction has been completed will be required during the regulatory review process.

It is expected that there will be timely resolutions of human subjects protocols submitted to the investigator's local IRB.

Additional information pertaining to the human subjects regulatory review process, guidelines for developing protocols, and suggested language for specific issues can be found at: <https://mrmc.detrick.army.mil/rodorphrpo.asp>.

2. Informed Consent Form: An informed consent form template is located at <https://mrmc.detrick.army.mil/docs/rcq/Proconsent/ConsentFormGuidelines.doc>.

3. Intent to Benefit: Investigators must consider the requirements of Title 10 United States Code Section 980 (10 USC 980; <http://www.dtic.mil/biosys/downloads/title10.pdf>)

applicable to DOD-sponsored research before writing a research protocol. 10 USC 980 requires that “Funds appropriated to the Department of Defense may not be used for research involving a human being as an experimental subject unless (1) the informed consent of the subject is obtained in advance; or (2) in the case of research intended to be beneficial to the subject, the informed consent may be obtained from a legal representative of the subject.”

Furthermore and consistent with the Common Federal Policy for the Protection of Human Subjects, if an individual cannot give his or her own consent to participate in a research study, consent of the individual's legally authorized representative must be obtained before the individual's participation in the research. Moreover, an individual not legally competent to consent (e.g., incapacitated individuals, incompetents, minors) may not be enrolled in a DOD-supported experiment unless the research is intended to benefit each subject enrolled in the study. For example, a subject may benefit directly from medical treatment or surveillance beyond the standard of care. Investigators should be aware that this law makes placebo-controlled clinical trials problematic because of the “intent to benefit” requirement whenever participation is sought of subjects from whom consent must be obtained by the legally authorized representative.

4. Clinical Trial Registry: All PIs are required to register clinical trials individually on www.clinicaltrials.gov using a Secondary Protocol ID number designation of: CDMRP-CDMRP Log Number. If several protocols exist under the same proposal, the Secondary Protocol ID number must be: CDMRP-CDMRP Log Number-A, B, C, etc. ***Clinical trials must be registered prior to enrollment of the first patient.*** All trials that meet the definition on the NIH database (see <http://prsinfo.clinicaltrials.gov/>, click on “[Data Element Definitions](#),” see section 6, “Study Phase” and “Study Type”) including all Phase I-IV clinical trials and trials that do not fit into one or more phases, but that are clearly interventional or observational (e.g., some epidemiological or behavioral studies), are required to register.

5. Conditions Regarding DOD Funding of Research on Human Embryonic Stem Cells: Research involving the derivation and use of human embryonic germ cells from fetal tissue may be conducted with DOD support ***only*** when the research is in compliance with 45 CFR 46, Subpart B (Title 45 of the Code of Federal Regulations, Section 46, Subpart B); 42 USC 289g through 289g 2; US Food and Drug Administration regulations; and any other applicable Federal, state, and local laws and regulations.

Research on existing human embryonic stem (hES) cell lines may be conducted with Federal support through the DOD ***only*** if the cell lines meet the current US Federal criteria as listed on the following National Institutes of Health (NIH) website (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-005.html>). A list of the currently approved cell lines can be obtained from the NIH Human Embryonic Stem Cell Registry (<http://stemcells.nih.gov/research/registry>). The NIH code should be used to identify the cell lines in the proposal.

Research involving the derivation of new stem cells from human embryos or the use of hES cells that are not listed on the NIH Human Embryonic Stem Cell Registry may not be conducted with Federal support through the DOD.

This restriction applies to hES cells derived from blastocysts remaining after infertility treatments and donated for research, blastocysts produced from donated gametes (oocytes and sperm) for research purposes, and the products of nuclear transfer. The research is subject to all applicable local, state, and Federal regulatory requirements.

APPENDIX 7

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 III).
- 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 Department of Defense (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 establishes the relevance of the study and explains the applicability of its 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, Human Research Protections Office (HRPO) approval is required prior to

initiation of any human subjects research activities supported by the US Army Medical Research and Materiel Command (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). Further, 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. Ensure that exclusions are justified. Diseases, medications, and groups of volunteers that should be excluded should be clearly stated.

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.

Provide copies of all recruitment and advertisement materials for review as part of the submission. 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.

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.

- 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 will be included in the study that cannot give their own consent to participate, 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 that 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, justification of why the waiver should be considered to include how the protocol meets the criteria set forth in 32 CFR 219 (Title 32 of the Code of Federal Register, Section 219) should be included in the protocol. 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, II, or III research.
- If the study is in support of an application to the Food and Drug Administration (FDA), provide the Investigational New Drug/Investigational Device Exemption (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 study (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 identification.** If unique identifiers or a specific code system will be used to identify volunteers, this process should be described in the protocol.
- **Confidentiality.**
 - The protocol should 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.
 - The protocol should 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 until 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 the 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 the 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.**
 - The protocol should clearly 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.

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, 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.

26. 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.

27. 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 Office of Research Protections (ORP) Human Research Protections Office (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.”

28. 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.

1. 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.

2. 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. Advertisements, Posters, and Press Releases to Recruit Volunteers

If volunteers will be recruited through an advertisement, newspaper article, or similar process, a copy of the advertisement must be provided for review and approval by the HRPO. Any “Dear Doctor” letters that will be used to aid in recruitment must also be provided for review. For studies involving investigational drugs or devices, the FDA has established guidelines on advertisements for volunteers. General guidance includes name and address of PI, summary of study purpose, brief eligibility criteria, accurate list of benefits, and the person to contact for further information.

Some important considerations for recruitment materials include:

1. Recruitment materials should not promise a cure or benefit beyond what is mentioned in the protocol or consent form.
2. If the volunteers will be paid, the amount of payment should not be presented in bold type, larger than other text, or otherwise overemphasized.
3. Recruitment materials should not promise “free medical treatment” when treatment is not the true intent of the study.

APPENDIX 8

REPORTING REQUIREMENTS

The Government requires reports to be submitted for continuation of the research and funding. The specific reports due to the Government will be described in each award instrument. (Full US Army Medical Research and Materiel Command reporting requirements can be found at <https://mrmc-www.army.mil>, under “Links and Resources.”) ***Failure to submit required reports by the required date may result in a delay in or termination of award funding.***

Reporting requirements include the following:

- 1. Research Progress Reports.** Reporting requirements consist of an annual report (for each year of research except the final year) that presents a detailed summary of scientific issues and accomplishments and a final report (submitted in the last year of the award period) that details the findings and issues for the entire project. Additional reporting may be required as stipulated during award negotiations. Copies of all scientific publications and patent applications resulting from Congressionally Directed Medical Research Programs funding should be included in the progress report. The Government reserves the right to request additional reports.
- 2. Fiscal Reports.** Quarterly fiscal report requirements may include the Standard Form Report, SF 272, Federal Cash Transaction, used for grants and cooperative agreements to track the expenditure of funds on the research project.
- 3. Non-Exempt Human Studies Reports.** For non-exempt human subjects research, documentation of local Institutional Review Board (IRB) continuing review (in the intervals specified by the local IRB, but at least annually) and approval for continuation must be submitted directly to the Office of Research Protections – Human Research Protection Office.
- 4. Animal Use Reports.** Principal Investigators are required to submit annual animal use information for a report to Congress, verification of annual protocol review, and notification of protocol suspension or revocation. Institutions are required to provide updated US Department of Agriculture reports and notification of changes to accreditation status as verified by the Association for Assessment and Accreditation of Laboratory Animals and Office of Laboratory Animal Welfare.

APPENDIX 9

ACRONYM LIST

ACURO.....	Animal Care and Use Office
ADP.....	Automated Data Processing
AOR.....	Authorized Organizational Representative
ARP.....	Autism Research Program
AVI.....	Audio Video Interleave
BCRP.....	Breast Cancer Research Program
CCR.....	Central Contractor Registration
CDMRP.....	Congressionally Directed Medical Research Programs
CFDA.....	Catalog of Federal Domestic Assistance
CFR.....	Code of Federal Regulations
cGMP.....	Current Good Manufacturing Practices
CAGE.....	Commercial and Government Entity
COI.....	Conflicts of Interest
CMLRP.....	Chronic Myelogenous Leukemia Research Program
CR.....	Contract Representative
DFARS.....	Department of Defense Federal Acquisition Supplement
DOD.....	Department of Defense
DODGAR.....	Department of Defense Grant and Agreement Regulations
DUNS.....	Data Universal Number System
EIN.....	Employer Identification Number
EPLS.....	Excluded Parties List System
FAR.....	Federal Acquisition Regulation
FDA.....	Food and Drug Administration
FY.....	Fiscal Year
GCP.....	Good Clinical Practice
GLP.....	Good Laboratory Practice
GWVIRP.....	Gulf War Veterans' Illnesses Research Program
HBCU/MI.....	Historically Black Colleges and Universities/Minority Institutions
HIPAA.....	Health Insurance Portability and Accountability Act
hES.....	Human Embryonic Stem
HRPO.....	Human Research Protection Office
HSRRB.....	Human Subjects Research Review Board
IDE.....	Investigational Device Exemption
IND.....	Investigational New Drug
IP.....	Integration Panel
IRB.....	Institutional Review Board
IRS.....	Internal Revenue Service
JPEG.....	Joint Photographic Experts Group
LAR.....	Legally Authorized Representative
LOI.....	Letter of Intent
M.....	Million
MB.....	Megabyte

MPEGMoving Picture Experts Group
NIHNational Institutes of Health
NFRP.....Neurofibromatosis Research Program
OCRPOvarian Cancer Research Program
OMBOffice of Management and Budget
ORP.....Office of Research Protections
PCRP.....Prostate Cancer Research Program
PDFPortable Document Format
PI.....Principal Investigator
P.L.....Public Law
POC.....Point of Contact
PRMRPPeer Reviewed Medical Research Program
R&R OPI.....Research & Related Other Project Information
SOW.....Statement of Work
SPORESpecialized Programs of Research Excellence
TIFFTagged Image File Format
TIN.....Tax Identification Number
TSCRIPTuberous Sclerosis Complex Research Program
URL.....Uniform Resource Locator
USAMRAA.....US Army Medical Research Acquisition Activity
USAMRMCUS Army Medical Research and Materiel Command
USC.....United States Code
WAVWaveform Audio
XML.....Extensible Markup Language

X. CDMRP-SPECIFIC FORMS

FORM 1

BIOGRAPHICAL SKETCH

Provide the following information for each individual included in the Research & Related Senior/Key Person Profile (Expanded) Form.

NAME		POSITION TITLE	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training).			
INSTITUTION AND LOCATION	DEGREE (IF APPLICABLE)	YEAR(S)	FIELD OF STUDY

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List in chronological order the titles, all authors, and complete references to all publications during the past 3 years and to representative earlier publications pertinent to this application. If the list of publications in the last 3 years exceeds 2 pages, select the most pertinent publications. PAGE LIMITATIONS APPLY. DO NOT EXCEED 4 PAGES FOR THE ENTIRE BIOGRAPHICAL SKETCH PER INDIVIDUAL.

RESEARCH AND PROFESSIONAL EXPERIENCE (CONTINUED). PAGE LIMITATIONS APPLY. DO NOT EXCEED 4 PAGES FOR THE ENTIRE BIOGRAPHICAL SKETCH PER INDIVIDUAL.