Program Announcement

Department of Defense Congressionally Directed Medical Research Programs

Multiple Sclerosis Research Program

Idea Award

Funding Opportunity Number: W81XWH-10-MSRP-IA

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I. FUNDING OPPORTUNITY DESCRIPTION

A. Program Description

The Multiple Sclerosis Research Program (MSRP) was established in fiscal year 2009 (FY09) with a $5 million (M) appropriation to promote innovative research focused on multiple sclerosis (MS). The FY10 appropriation for the MSRP is $4.5M.

The MSRP challenges the scientific community to design pioneering concepts and high impact research relevant to the etiology, pathogenesis, assessment, and treatment of MS. The vision of the MSRP is to prevent the occurrence of; cure, reverse, or slow the progression of; and lessen the personal and societal impact of multiple sclerosis.

B. FY10 MSRP Focus Areas

FY10 MSRP encourages applications that address the following critical needs of the MS community through understanding the genetic, biological, and environmental factors that contribute to any of the following:

- **Biological basis of disease progression**
  - Primary progressive MS
  - Secondary progressive MS
- **Neurological protection, regeneration, and repair**
- **MS phenotypic heterogeneity**
  - Population subgroups (ancestry, sex, and others)
  - Novel stratification of affected population
- **Gene/environment interactions**
  - Etiology
  - Disease course
- **Biomarkers of disease activity, progression, and drug response**
- **Drug discovery**
  - Assay development
  - Screening of novel compounds
  - Not human clinical trials
- **Biological basis of fatigue, sexual dysfunction, cognitive impairment, affective disorder, and rehabilitation**

C. Award Description

The MSRP Idea Award mechanism is being offered for the first time in FY10.

The Idea Award is designed to promote new ideas that are in the early stages of development and have the potential to yield high-impact findings and new avenues of investigation. The intent of this award mechanism is to support conceptually innovative, high-risk/potentially high-reward research that could ultimately lead to critical discoveries toward understanding the causes and progression of MS and/or improvements in patient care and/or quality of life. Research projects should include a well-formulated, testable hypothesis based on strong scientific rationale.

Clinical trials are not allowed. Research involving human subject use is permitted under this funding opportunity, but is restricted to studies without clinical trials. The FY10 MSRP is not offering an award mechanism that will support clinical trials.

The MSRP seeks applications from all areas of basic, preclinical, and epidemiological research. The following are significant features of this award mechanism:

1. Innovation: Innovative research may introduce a new paradigm, challenge existing paradigms, look at existing problems from new perspectives, or exhibit other uniquely creative qualities. This may include high-risk, potentially high-gain approaches to MS research, provided that there is the potential for significant impact on the field of research and/or patient care. Research that is an incremental advance upon published data is not considered innovative and will not be considered for funding under this award mechanism.

2. Impact: Research that has high impact will, if successful, significantly advance current methods and concepts toward the MSRP vision of preventing the occurrence, curing, reversing, or slowing the progression, and lessening the personal and societal impact of MS.

3. Preliminary Data: Preliminary data, unpublished results from the laboratory of the Principal Investigator (PI) or collaborators named on this application, and/or data from the published literature that is relevant to MS and the proposed research project should be included.

D. Eligibility

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

E. Funding

Applications with a single PI:

- The maximum period of performance is 3 years.
- The maximum allowable funding for the entire period of performance is $**450,000** in direct costs.

- The applicant may request the entire maximum direct cost amount for a project that may be less than the maximum 3-year period of performance.
- Regardless of the period of performance proposed, the applicant may not exceed the maximum direct cost. In addition to the direct costs, indirect costs may be proposed in accordance with the organization's negotiated rate agreement.

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

- Salary
- Research supplies
- Equipment
- Clinical research costs (Clinical trials will not be supported)
- Travel between collaborating institutions
- Travel costs of up to $1,800 per year to attend scientific/technical meetings
- Other direct costs as described in the General Application Instructions for the Detailed Budget and Justification

The Office of the Congressionally Directed Medical Research Programs (CDMRP) expects to allot approximately $2.7M of the $4.5M FY10 MSRP appropriation to fund approximately 4 Idea Award applications, depending on the quality and number of applications received. Funding of applications received in response to this Program Announcement/Funding Opportunity is contingent upon the availability of Federal funds for this program.

F. Award Administration

Awards will be made approximately 4 to 6 months after receiving a funding notification letter, but no later than September 30, 2011. Refer to the General Application Instructions, Appendix 4, for general award administration information.

II. TIMELINE FOR SUBMISSION AND REVIEW

- **Pre-application Submission Deadline: 5:00 p.m. Eastern time (ET), March 11, 2010**
- **Invitation to Submit an Application: April 27, 2010**
- **Application Submission Deadline: 11:59 p.m. ET, June 10, 2010**
- **Scientific Peer Review: July 2010**
- **Programmatic Review: October 2010**

Application submissions will not be accepted unless the pre-application process is completed by the pre-application deadline.

III. SUBMISSION PROCESS

Submission is a two-step process requiring both (1) pre-application submission through the CDMRP eReceipt system (https://cdmrp.org/) and (2) application submission through Grants.gov (http://www.grants.gov/). ***Applications will be invited based on pre-application screening.***

Submission of the same research project to different funding opportunities within the same program and fiscal year is discouraged. The Government reserves the right to reject duplicative applications.

PIs and organizations identified in the application should be the same as those identified in the pre-application. No change in PI will be allowed after the pre-application deadline. If a change in organization is necessary after submission of the pre-application, the PI must contact the eReceipt help desk at help@cdmrp.org or 301-682-5507.

A. Step 1 – Pre-Application Components

All pre-application components must be submitted through the CDMRP eReceipt system by ***5:00 p.m. ET on the deadline***. ***Because the invitation to submit an application is based on the contents of the pre-application, investigators should not change the title or research objectives after the pre-application is submitted.***

The pre-application consists of the following components, which are organized in the CDMRP eReceipt system by separate tabs: (Refer to the General Application Instructions for additional information on pre-application submission.

- **Proposal Information – Tab 1**
- **Proposal Contacts – Tab 2**
- **Collaborators and Conflicts of Interest (COI) – Tab 3**
- **Required Files – Tab 4**

  Preproposal Narrative (two-page limit): The Preproposal Narrative is inclusive of any figures, tables, graphs, photographs, diagrams, chemical structures, pictures, pictorials, and cartoons.

  The preproposal narrative should include the following:

  - **Rationale:** Clearly articulate the rationale for the project by presenting the ideas and reasoning behind the proposed research; include relevant literature citations.
  - **Hypothesis or Objective:** State the hypothesis to be tested or the objective to be reached.
  - **Research:** State the project's specific aims.

- **Innovation:** Describe how the proposed research is innovative, and how the research represents more than an incremental advance on published data.
- **Impact:** Describe the potential impact of the results of the proposed study on MS, and how it addresses at least one of the FY10 MSRP focus areas.

Pre-Application Supporting Documentation: The items to be included as supporting documentation for the pre-application are limited to:

- References Cited (one-page limit): 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.
- List of Acronyms and Symbols: Provide a list of acronyms and symbols (e.g., PCR = polymerase chain reaction).
- Key Personnel Biographical Sketches (four-page limit per individual)

- **Submit Pre-Application – Tab 5**
- **Other Documents Tab** (Not applicable)

Pre-Application Screening: Pre-applications will be screened by the FY10 MSRP Integration Panel (IP), which is composed of scientists, clinicians, and consumer advocates. Feedback from the pre-application screening will not be provided to the PIs. The pre-application screening criteria are as follows:

- **Adherence to the intent of the award mechanism**
- **Innovation**: How well the research proposes new paradigms, challenges existing paradigms, looks at existing problems from new perspectives, or exhibits other uniquely creative qualities.
- **Impact**: Whether the proposed research, if successful, will make an important contribution that significantly advances current methods and concepts toward the MSRP vision of preventing the occurrence, curing, reversing, or slowing the progression, and lessening the personal and societal impact of MS.
- **Research Idea:** How well the proposed project addresses a central critical problem or question in MS research.
- **Personnel:** To what degree the PI's background and MS-related expertise are appropriate to accomplish the proposed work.

Following the pre-application screening, PIs will be notified of whether or not they are invited to submit an application; however, they will not receive feedback (e.g., strengths and weaknesses) on their pre-application.

B. Step 2 – Application Components

Applications will not be accepted unless the PI has received a letter of invitation.

Applications are submitted by the Authorized Organizational Representative (AOR) through Grants.gov (http://www.grants.gov/). Applications must be submitted **by *11:59 p.m. ET on the deadline.***

Each application submission must include the completed application package of forms and attachments identified in Grants.gov for this Program Announcement/Funding Opportunity.

The Grants.gov application package consists of the following components (Refer to the General Application Instructions, Section II.B., for additional information on application submission):

1. SF 424 (R&R) Application for Federal Assistance Form: Refer to the General Application Instructions, Section II.B., for detailed information.

2. Attachments Form

- **Attachment 1: Project Narrative (six-page limit):** Upload as "ProjectNarrative.pdf."

  Describe the proposed project in detail using the outline below.

  Background: Present the ideas and reasoning behind the proposed research; include relevant literature citations. Describe how the previous experience of the PI and research team relates to proposed research. Preliminary data, unpublished results from the laboratory of the PI or collaborators named on this application, and/or data from the published literature that is relevant to MS and the proposed research project should be included.

  Hypothesis or Objective: State the hypothesis to be tested or the objective to be reached.

  Specific Aims: Concisely explain the project's specific aims to be funded by this application.

  Research Strategy: Describe the experimental design, methods, and analyses, including appropriate controls and statistical plan, in sufficient detail for analysis. Include specific examples of innovative elements incorporated into the research design. Address potential problem areas and present alternative methods and approaches. If human subjects or human biological samples will be used, include a plan for the recruitment of subjects or the acquisition of samples, and document the experience of the PI and/or key collaborators in recruiting human subjects for similar projects. ***This award may not be used to conduct clinical trials.***

- **Attachment 2: Supporting Documentation.** Start each document on a new page. Combine and upload as a single file named "Support.pdf." If documents are scanned to pdf, the lowest resolution (100 to 150 dpi) should be used. ***Each component has no page limit unless otherwise noted.***

- 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.
- List of Acronyms and Symbols: Provide a list of acronyms and symbols (e.g., PCR = polymerase chain reaction).
- Facilities, Existing Equipment, and Other Resources: Describe the facilities and equipment available for performance of the proposed project and any additional facilities or equipment proposed for acquisition at no cost to the US Army Medical Research and Materiel Command (USAMRMC). Indicate whether or not Government-owned facilities or equipment are 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.
- Publications and/or Patent Abstracts (five-document limit): Include relevant publication URLs and/or patent abstracts. If publications are not publicly available, then they must be included. Extra items will not be reviewed.
- Letters of Organizational Support: Provide a letter (or letters if applicable), signed by the Department Chair or appropriate organization official, reflecting the laboratory space, equipment, and other resources available for the project. If the PI is a clinician, the organization must clearly demonstrate a commitment to the clinician's research.
- Letters of Collaboration (if applicable)
- Intellectual and Material Property Plan (if applicable): Provide a plan for resolving intellectual and material property issues among participating organizations.

- **Attachment 3: Technical Abstract (one-page limit):** Upload as "TechAbs.pdf."

  Describe the proposed research projected including the following elements: background, hypothesis or objective, study design, innovative aspects of the proposed research.

- **Attachment 4: Public Abstract (one-page limit):** Upload as "PublicAbs.pdf."

  Clearly describe, in a manner readily understood by lay persons, the central critical problem or question to be addressed, the innovative aspect of the research, and the relevance of the project to MS.

- **Attachment 5: Statement of Work (SOW) (three-page limit):** Upload as "SOW.pdf."

  Refer to the General Application Instructions, Section II.B., for detailed information.

- **Attachment 6: Detailed Budget and Justification (no page limit):** Upload as "Budget.pdf." Use the Detailed Budget and Justification form (available for download on the Full Announcement page in Grants.gov). Refer to the General Application Instructions, Section II.B., for detailed information.

- **Attachment 7: Subaward Detailed Budget and Justification (if applicable) (no page limit):** Use a separate Detailed Budget and Justification form for each subaward budget. Combine into a single file and upload as "SubBudgets.pdf." Refer to the General Application Instructions, Section II.B., for detailed information.
- **Attachment 8: Innovation Statement (one-page limit):** Upload as "Innovation.pdf."

  Summarize how the proposed work is innovative. Investigating the next logical step or an incremental advancement on published data is not considered innovative.

  Although not all-inclusive, the following examples are ways in which proposed work may be innovative; these examples are intended to help PIs frame the innovative features of the research proposed:

  - 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
  - Novel method or technology – Development of a novel method or technology for prevention, detection, diagnosis, 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
- **Attachment 9: Impact Statement (one-page limit):** Upload as "Impact.pdf."

  Describe why the proposed research project is important to understanding the causes and progression of MS and/or improvements in patient care and/or quality of life. Explain the potential short- and long-term impact of this study on the field of research and/or patient care. Detail the anticipated outcome(s)/product(s) (intellectual and/or tangible) that will be directly attributed to the results of the proposed research project (short-term impact). Describe the anticipated long-term gains from this research course, and compare these to MS information/products currently available, if applicable.

3. Research & Related Senior/Key Person Profile (Expanded) Form: Refer to the General Application Instructions, Section II.B., for detailed information.

- PI Biographical Sketch (four-page limit): Upload as "Biosketch_LastName.pdf."
- PI Current/Pending Support (no page limit): Upload as "Support_LastName.pdf."
- Key Personnel Biographical Sketches (four-page limit each): Upload as "Biosketch_LastName.pdf."
- Key Personnel Current/Pending Support (no page limit): Upload as "Support_LastName.pdf."

4. Project/Performance Site Location(s) Form: Refer to the General Application Instructions, Section II.B., for detailed information.

IV. INFORMATION FOR APPLICATION REVIEW

A. Application Review and Selection Overview

All applications are evaluated by scientists, clinicians, and consumer advocates using a two-tier review process. The first tier is a scientific peer review of applications against established criteria for determining scientific merit. The second tier is a programmatic review that compares applications to each other and makes recommendations for funding to the Commanding General, USAMRMC, based on scientific merit, the overall goals of the program, and specific intent of the award mechanism. The highest scoring applications from the first tier of review are not automatically recommended for funding. Additional information about the two-tier review process used by the CDMRP may be found at http://cdmrp.army.mil/fundingprocess.htm.

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

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

B. Review Criteria

1. Peer Review: All applications will be evaluated according to the following criteria, which are of equal importance:

- **Impact**
  - How the research, if successful, will make an important contribution that significantly advances our understanding of the causes and the progression of MS, and/or improves the patient care and/or quality of life.
  - How well the anticipated short-term outcome(s)/product(s) (intellectual and/or tangible) are described.
  - How well the anticipated long-term gains from this research course are described, and how these compare to information/products currently available, if applicable.

- **Innovation**
    - How well the research proposes new paradigms or challenges existing paradigms 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 proposed research project is a new research idea and not the next logical step or continuation of a previous research project.
    - How the proposed research represents more than an incremental advance upon published data.
- **Research Strategy and Feasibility**
    - How the scientific rationale supports the project and its feasibility, as demonstrated by a critical review and analysis of the literature, MS-relevant preliminary data, and/or logical reasoning.
    - How well the hypotheses or objectives, specific aims, experimental design, methods, and analyses are developed and integrated into the project.
    - How well the PI acknowledges potential problems and addresses alternative approaches.
    - Whether the proposal includes an appropriate statistical plan with power analysis, if applicable.

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

- **Personnel**
    - Whether the applicant meets the eligibility requirements.
    - How the research team's background and MS-related expertise are appropriate to accomplish the proposed work.
    - To what degree the levels of effort are appropriate for successful conduct of the proposed work.
- **Environment**
    - How the scientific environment is appropriate for the proposed research.
    - How the research requirements are supported by the availability of and accessibility to facilities and resources (including collaborative arrangements).
    - How the quality and extent of institutional support are appropriate for the proposed research.
- **Budget**
    - Whether the budget is appropriate for the proposed research and within the limitations of this Program Announcement/Funding Opportunity.

- **Application Presentation**
    - How the writing and components of the application influenced the review.

2. Programmatic Review: The following criteria are used by programmatic reviewers to make funding recommendations.

- Adherence to the intent of the award mechanism
- Program portfolio composition
- Ratings and evaluations of the peer reviewers
- Relative innovation and impact
- Relevance to program objectives
- Responsiveness to at least one of the FY10 MSRP focus areas

V. ADMINISTRATIVE ACTIONS

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

A. Rejection

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

- Preproposal Narrative exceeds page limit.
- Preproposal Narrative is missing.
- Page size is larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).
- PI Biographical Sketch is missing.

The following will result in administrative rejection of the application:

- Project Narrative exceeds page limit.
- Project Narrative is missing.
- Budget is missing.
- Page size is larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).
- Submission of an application for which a letter of invitation was not received.

B. Modifications

- Pages exceeding the specified limits will be removed for all documents other than the Project Narrative and Preproposal Narrative.
- Documents not requested will be removed.

- Following the application deadline, you may be contacted by CDMRP via email with a request to provide certain missing supporting documents (excluding those listed in Section V-A, Rejection). The missing documents must be provided by 5:00 p.m. ET on the second full business day following the date the email was sent. Otherwise, the application will be reviewed as submitted.

C. Withdrawal

The following may result in administrative withdrawal of the application:

- FY10 MSRP IP member(s) is found to be involved in the pre-application or application processes including, but not limited to, concept design, application development, budget preparation, and the development of any supporting document. A list of the FY10 MSRP IP members may be found at http://cdmrp.army.mil/10msrppanel.htm.
- Submission of the same research project to different funding opportunities within the same program and fiscal year.
- The application does not conform to this Program Announcement/Funding Opportunity description to an extent that precludes appropriate review.
- Direct costs as shown on the detailed budget form exceed maximum allowed by this Program Announcement/Funding Opportunity.
- Inclusion of URLs with the exception of links to published references.
- Submission of an application for which a letter of invitation was not received.
- The proposed research is a clinical trial.
- The PI does not meet the eligibility criteria as described in this Program Announcement/Funding Opportunity.

D. Withhold

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

VI. CONTACT INFORMATION

A. CDMRP Program Announcement Help Desk: Questions related to Program Announcement/Funding Opportunity content or submission requirements should be directed to the CDMRP Program Announcement help desk, which is available Monday through Friday from 7:30 a.m. to 4:00 p.m. ET. Submit questions as early as possible. Response times will vary depending upon the volume of inquiries. Every effort will be made to answer questions within 5 working days.

Phone: 301-619-7079
Email: cdmrp.pa@amedd.army.mil

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

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

C. Grants.gov Contact Center: Questions related to application submission through the Grants.gov portal should be directed to Grants.gov help desk, which is available 24 hours a day, 7 days a week. Please note that the CDMRP Program Announcement and eReceipt system help desks are unable to provide technical assistance regarding Grants.gov submissions.

Phone: 800-518-4726
Email: support@grants.gov

Sign up on Grants.gov for "send me change notification emails" by following the link on the Synopsis page for the Program Announcement/Funding Opportunity. If the application package is updated or changed, the original version of the application package may not be accepted by Grants.gov.

VII. APPLICATION SUBMISSION CHECKLIST

Grants.gov Application Components	Action	Completed
SF-424 (R&R) Application for Federal Assistance Form	Complete form as instructed	
Attachments Form	Upload Project Narrative (ProjectNarrative.pdf) as Attachment 1	
	Upload Supporting Documentation (Support.pdf) as Attachment 2	
	Upload Technical Abstract (TechAbs.pdf) as Attachment 3	
	Upload Public Abstract (PublicAbs.pdf) as Attachment 4	
	Upload Statement of Work (SOW.pdf) as Attachment 5	
	Upload Detailed Budget and Justification (Budget.pdf) as Attachment 6	
	Upload Subaward Detailed Budget and Justification (SubBudgets.pdf) as Attachment 7	
	Upload Innovation Statement (Innovation.pdf) as Attachment 8	
	Upload Impact Statement (Impact.pdf) as Attachment 9	
Research & Related Senior/Key Person Profile (Expanded)	Attach PI Biographical Sketch (Biosketch_LastName.pdf) to the appropriate field	
	Attach PI Current & Pending Support (Support_LastName.pdf) to the appropriate field	
	Attach Biographical Sketch (Biosketch_LastName.pdf) for each senior/key person to the appropriate field	
	Attach Current & Pending Support (Support_LastName.pdf) for each senior/key person to the appropriate field	
Project/Performance Site Location(s) Form	Complete form as instructed	