# Materials World Network: Cooperative Activity in Materials Research between US Investigators and their Counterparts Abroad (MWN)

**Program Solicitation** 

**NSF 06-590** 

Replaces Document(s): NSF 05-594



#### **National Science Foundation**

Directorate for Mathematical & Physical Sciences Division of Materials Research

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

November 20, 2006

## **REVISION NOTES**

In furtherance of the President's Management Agenda, in Fiscal Year 2006, NSF has identified programs that will offer proposers the option to utilize Grants.gov to prepare and submit proposals, or will require that proposers utilize Grants.gov to prepare and submit proposals. Grants.gov provides a single Government-wide portal for finding and applying for Federal grants online.

In response to this program solicitation, proposers may opt to submit proposals via Grants.gov or via the NSF FastLane system. In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. Chapter II, Section D.3 of the Grant Proposal Guide provides additional information on collaborative proposals.

#### **SUMMARY OF PROGRAM REQUIREMENTS**

## **General Information**

#### **Program Title:**

Materials World Network: Cooperative Activity in Materials Research between US Investigators and their Counterparts Abroad (MWN)

#### Synopsis of Program:

Continued progress in fundamental materials and condensed matter research is increasingly dependent upon collaborative efforts among several different disciplines, as well as closer coordination among funding agencies and effective partnerships involving universities, industry, and national laboratories. In addition, because of the growing interdependence of the world's economies, partnerships are important not only at the national level but from an international point of view as well. The National Science Foundation is working jointly with counterpart national, regional and multinational funding organizations worldwide to enhance opportunities for collaborative activities in materials research and education between US investigators and their colleagues abroad. This solicitation describes an activity to foster opportunities for such collaborations. It includes joint activities between NSF and funding organizations in Africa, the Americas, Asia, Europe and other regions.

Proposals submitted to NSF in response to this solicitation must have clear relevance to research supported by the NSF Division of Materials Research (DMR), as they will be evaluated within the context of programmatic areas within DMR. Proposals not appropriate for DMR consideration will be returned without review. NSF will accept proposals from US universities and colleges addressing collaborations between researchers from the US and participating countries or regions. Concurrently, investigators at non-US research institutions should submit to the counterpart funding organization in their country or region a request for support of their side of the collaboration. NSF will consider support of all appropriate research costs in the US side of such collaborations, with the expectation that funding or research organizations from the appropriate countries or regions will consider supporting the costs of the non-US participants. Projects proposed to NSF are expected to offer students and junior researchers the opportunity to participate in an international research and education experience and, more generally, for integrating research and training in an international environment, and to clearly demonstrate the value added by the international collaboration.

## Cognizant Program Officer(s):

Dr. Carmen Huber, Division of Materials Research, Office of Special Programs, telephone: 703-292-4939, fax: 703-292-9036, email: chuber@nsf.gov

## Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

• 47.049 --- Mathematical and Physical Sciences

## **Award Information**

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 20 to 40 depending on quality of proposals and availability of funds

Anticipated Funding Amount: \$2,500,000 to \$4500000.00 total in FY 2007, depending on quality of proposals and availability of

funds

## **Eligibility Information**

#### **Organization Limit:**

Proposals may only be submitted by the following:

• Universities and colleges: U.S. universities and two- and four-year colleges (including community colleges)

#### PI Limit:

An investigator may be Principal Investigator in either (a) a proposal submitted in response to this solicitation or, (b) an unsolicited proposal submitted to the Division of Materials Research within the FY07 DMR submission window (see <a href="http://www.nsf.gov/materials">http://www.nsf.gov/materials</a>), but not both.

#### Limit on Number of Proposals per Organization:

None Specified

## Limit on Number of Proposals per PI:

An investigator may be Principal Investigator in only one proposal submitted in response to this solicitation.

## **Proposal Preparation and Submission Instructions**

#### A. Proposal Preparation Instructions

- Letters of Intent: Not Applicable
- Full Proposals:
  - Full Proposals submitted via FastLane: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg.
  - Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/bfa/dias/policy/docs/ grantsgovguide.pdf/)

## **B. Budgetary Information**

- Cost Sharing Requirements: Cost Sharing is not required by NSF.
- Indirect Cost (F&A) Limitations: Not Applicable
- Other Budgetary Limitations: Not Applicable

#### C. Due Dates

• Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

November 20, 2006

#### **Proposal Review Information Criteria**

**Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

#### **Award Administration Information**

Award Conditions: Standard NSF award conditions apply

Reporting Requirements: Standard NSF reporting requirements apply

#### **TABLE OF CONTENTS**

## **Summary of Program Requirements**

- I. Introduction
- **II. Program Description**
- **III. Award Information**

#### IV. Eligibility Information

#### V. Proposal Preparation and Submission Instructions

- A. Proposal Preparation Instructions
- B. Budgetary Information
- C. Due Dates
- D. FastLane/Grants.gov Requirements

#### VI. NSF Proposal Processing and Review Procedures

- A. NSF Merit Review Criteria
- B. Review and Selection Process

#### **VII. Award Administration Information**

- A. Notification of the Award
- **B.** Award Conditions
- C. Reporting Requirements
- VIII. Agency Contacts
- IX. Other Information

## I. INTRODUCTION

The basic properties of materials frequently define the capabilities, potential, reliability and limitations of technology. Advances in fundamental materials and condensed matter research enable progress to be made across a broad range of scientific and engineering disciplines and technological areas with dramatic impacts on society. Continued progress in materials research is increasingly dependent upon collaborative efforts among several different disciplines, as well as closer coordination among funding agencies and effective partnerships involving universities, industry, and national laboratories. In addition, because of the growing interdependence of the world's economies, partnerships are important not only at the national level but from an international point of view as well.

Over the last decade, the National Science Foundation has co-sponsored a series of international workshops designed to help stimulate enhanced collaboration among materials researchers and create networks linking individuals and centers in participating regions. These workshops have identified possible areas for mutually beneficial collaborations, and recommended that extensive use be made of electronic communication, information exchanges, and databases to promote and facilitate research collaborations and education activities at the international level. The National Science Foundation is working jointly with counterpart national, regional and multinational funding organizations worldwide to enhance opportunities for collaborative activities in materials research and education between US investigators and their colleagues abroad.

#### II. PROGRAM DESCRIPTION

This solicitation describes an activity to foster collaboration in materials and condensed matter research between investigators in the US and their counterparts abroad. It includes joint activities between NSF and funding organizations in Africa, through the US-Africa Materials Collaboration; the Americas, through the Inter-American Materials Collaboration (CIAM); Asia, Europe and other countries or regions.

Proposals submitted to NSF in response to this solicitation must have clear relevance to fundamental materials and condensed matter research supported by the NSF Division of Materials Research. Projects not having this focus will not be considered for funding. Proposals will be evaluated within the context of programmatic areas supported by the NSF Division of Materials Research. For areas supported by the Division of Materials Research (DMR) see <a href="http://www.nsf.gov/funding/pgm\_list.jsp?org=DMR">http://www.nsf.gov/funding/pgm\_list.jsp?org=DMR</a>. It is strongly recommended that you contact the cognizant program officer (Dr. Carmen Huber, <a href="https://chuber@nsf.gov">chuber@nsf.gov</a>) to ascertain that the scientific or technical focus of the proposed research is appropriate for this solicitation. Proposals not appropriate for consideration by the Division of Materials Research will be returned without review.

NSF will accept proposals from US universities and colleges addressing collaborations between researchers from the US and participating countries or regions. Concurrently, investigators at non-US research institutions should submit to the counterpart funding organization in their country or region a request for support of their side of the collaboration. NSF will consider support of all appropriate research costs in the US side of such collaborations, with the expectation that funding or research organizations from the appropriate

countries or regions will consider supporting the costs of the non-US participants. **NSF will not accept proposals from investigators at non-US institutions.** Contact information for participating funding organizations abroad is listed in Section VIII.

Projects proposed to NSF are expected to offer students and junior researchers the opportunity to participate in an international research and education experience and, more generally, for integrating research and training in an international environment. Proposals that include exchange of students and post-doctoral research associates between the US and abroad are strongly encouraged, as well as proposals from junior faculty and members of underrepresented groups in science and engineering.

Proposals addressing materials and condensed matter research areas as described above are covered by this solicitation. Of special interest to NSF are proposals including activities that build upon and expand current cyber infrastructure capabilities, such as remote use of instrumentation, database creation and use, visualization and virtual experimentation, virtual networking, etc, to enhance and advance the international collaboration.

Proposals to NSF from individual investigators and small groups of investigators (3-5 investigators) are welcome. Proposals should be balanced in terms of intellectual effort and participation in the US and abroad.

#### III. AWARD INFORMATION

The estimated number of awards is 20 to 40, depending on quality of proposals and availability of funds. The total anticipated funding amount is \$2,500,000 to \$4,500,000 in FY 2007. Estimated total funding, number of awards and average award size/duration are subject to quality of proposals and availability of funds. Awards may be standard or continuing grants.

#### IV. ELIGIBILITY INFORMATION

## **Organization Limit:**

Proposals may only be submitted by the following:

Universities and colleges: U.S. universities and two- and four-year colleges (including community colleges)

#### PI Limit:

An investigator may be Principal Investigator in either (a) a proposal submitted in response to this solicitation or, (b) an unsolicited proposal submitted to the Division of Materials Research within the FY07 DMR submission window (see <a href="http://www.nsf.gov/materials">http://www.nsf.gov/materials</a>), but not both.

## Limit on Number of Proposals per Organization:

None Specified

## Limit on Number of Proposals per PI:

An investigator may be Principal Investigator in only one proposal submitted in response to this solicitation.

#### Additional Eligibility Info:

# V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

#### A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Grants.

gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: <a href="http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg">http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg</a>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from <a href="mailto:pubs@nsf.gov">pubs@nsf.gov</a>. Proposers are reminded to identify this program solicitation number in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/bfa/dias/policy/docs/grantsgovguide.pdf). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. Chapter II, Section D.3 of the Grant Proposal Guide provides additional information on collaborative proposals.

Requests for additional funding (supplement) by a US Principal Investigator to an existing NSF award may not be submitted to this competition; such requests should be made directly through the program where the existing award is administered.

Proposals from foreign investigators should be submitted to the appropriate counterpart funding organization in accordance with the guidelines of that organization. Because application guidelines differ among the participating organizations, it is not necessary to submit identical proposals to NSF and the counterpart organization(s). However, whenever the guidelines and evaluation criteria from NSF and the counterpart organization(s) allow for submission of a single project description to both organizations, proposers are strongly encouraged to do so. In such case, the Project Description of the counterpart proposal (item 1.b below) is redundant and need not be included as a supplementary document.

The following guidelines, in addition to those in the NSF GPG, should be followed in preparing the proposal to NSF:

- The title of the proposal to NSF should begin as: "Materials World Network: ... "
- The Project Summary must address in separate statements the intellectual merit and the broader impacts of the proposed activity and, within the context of these two statements, the value added by the proposed international collaboration.
- The duration of the project proposed to NSF should match the duration of the counterpart project proposed to the other funding organization(s).
- The proposal to NSF must be accompanied by two additional items entered into the "Supplementary Docs" FastLane form.
   Proposals that do not include these two items or do not observe the indicated page limitations will be returned without review.
  - 1. Information clearly identifying the nature and scope of the corresponding counterpart proposal must be provided. For each counterpart proposal include:
    - a. Summary Information: name of the counterpart agency or agencies, names and affiliations of principal participants, the counterpart project title and identification code (if any), and date of proposal submission. Also state the requested funds, requested start and termination dates, and provide a technical abstract. (Limit: 3 pages).
    - b. Project Description of the counterpart proposal including, for example, state of knowledge of the field, results from previous work, objectives, plan of work, expected outcomes and their significance (Limit: 15 pages this is an upper limit, not a required length). NSF strongly encourages submission of a single project description to

the participating funding organizations whenever possible. If the same project description is submitted to NSF and the counterpart funding organization(s) and/or the main body of the proposal to NSF already contains a description of the counterpart effort, then this item (b) is not necessary.

- c. Biographical sketches or curriculum vitae of the senior project personnel, including significant publications related to the proposed project. As for US participants, these must include the investigators' thesis and postdoctoral advisors, thesis recipients and postgraduate scholars sponsored, as well as a list of collaborators (Limit: 2 pages per individual).
- 2. A specific summary of the proposed interaction, including visits between the US and their partners abroad, stating the anticipated scientific benefits of the interaction, must be provided. (Limit: 2 pages).

No additional letters of support or recommendation may be included.

## **B. Budgetary Information**

**Cost Sharing:** Cost sharing is not required by NSF in proposals submitted to the National Science Foundation.

#### **C. Due Dates**

• Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

November 20, 2006

# D. FastLane/Grants.gov Requirements

## • For Proposals Submitted Via FastLane:

Detailed technical instructions regarding the technical aspects of preparation and submission via FastLane are available at: https://www.fastlane.nsf.gov/a1/newstan.htm. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

**Submission of Electronically Signed Cover Sheets.** The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane Website at: <a href="https://www.fastlane.nsf.gov/fastlane.jsp">https://www.fastlane.nsf.gov/fastlane.jsp</a>.

#### • For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. The Grants. gov's Grant Community User Guide is a comprehensive reference document that provides technical information about Grants.gov. Proposers can download the User Guide as a Microsoft Word document or as a PDF document. The Grants.gov User Guide is available at: <a href="http://www.grants.gov/CustomerSupport">http://www.grants.gov/CustomerSupport</a>. In addition, the NSF Grants.gov Application Guide provides additional technical guidance regarding preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: <a href="mailto:support@grants.gov">support@grants.gov</a>. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

**Submitting the Proposal:** Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

#### VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program and, if they meet NSF proposal preparation requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with the oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts with the proposer.

#### A. NSF Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board (NSB)-approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two NSB-approved merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which the reviewer is qualified to make judgements.

## What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

#### What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

NSF staff will give careful consideration to the following in making funding decisions:

#### Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

#### Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

#### **Additional Review Criteria:**

Reviewers will also take into consideration the value added by the proposed international collaboration in materials and condensed matter research, and the extent to which the collaboration integrates research and education and promotes diversity. *Preference will be given to proposals where the intellectual efforts in the US and abroad are balanced and where students and junior researchers participate in the international collaboration.* 

Representatives from NSF's Division of Materials Research will manage the review of proposals on the US side, either in parallel or jointly with participating funding organizations. NSF anticipates that after a corresponding evaluation of the counterpart proposal(s) by the appropriate counterpart funding organization(s), coordinated support will be arranged for successful proposals by the participating organizations. Information about proposals will be shared between the participating organizations as appropriate. While each side reserves the option to fund proposals

independently, strong preference will be given to proposals with support from both NSF and the counterpart organization.

#### **B. Review and Selection Process**

Proposals submitted in response to this program solicitation will be reviewed by Adhoc Review or Panel Review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the date of receipt. The interval ends when the Division Director accepts the Program Officer's recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

#### VII. AWARD ADMINISTRATION INFORMATION

#### A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

#### **B. Award Conditions**

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (GC-1); \* or Federal Demonstration Partnership (FDP) Terms and Conditions \* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

\*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/awards/managing/general\_conditions.jsp? org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub summ.jsp?ods key=gpm.

## **C.** Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report

to the cognizant Program Officer at least 90 days before the end of the current budget period. (Some programs or awards require more frequent project reports). Within 90 days after expiration of a grant, the PI also is required to submit a final project report.

Failure to provide the required annual or final project reports will delay NSF review and processing of any future funding increments as well as any pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

Pls are required to use NSF's electronic project-reporting system, available through FastLane, for preparation and submission of annual and final project reports. Such reports provide information on activities and findings, project participants (individual and organizational) publications; and, other specific products and contributions. Pls will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system. Submission of the report via FastLane constitutes certification by the PI that the contents of the report are accurate and complete.

#### **VIII. AGENCY CONTACTS**

General inquiries regarding this program should be made to:

Dr. Carmen Huber, Division of Materials Research, Office of Special Programs, telephone: 703-292-4939, fax: 703-292-9036, email: chuber@nsf.gov

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.
- Maxine E. Jefferson-Brown, Computer Specialist, 1065 N, telephone: (703) 292-4918, fax: (703) 292-9035, email: mjeffers@nsf.gov

For questions relating to Grants.gov contact:

 Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

Contacts at other organizations:

Contact information in participating countries or regions is provided for the convenience of researchers in those countries or regions. Questions from US investigators should be directed to NSF.

Inter-American Materials Collaboration (CIAM) Contacts:

## ARGENTINA Consejo de Investigaciones Científicas y Técnicas (CONICET)

http://www.conicet.gov.ar/

Rivadavia 1917, 1033 Buenos Aires

Dr. Jorge Tezón, Sub Gerente de Fomento Científico y Tecnológico

Tel.: 54-11-4951-4673, Fax: 54-11-4953-7483, jtezon@conicet.gov.ar

BRAZIL

Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

http://www.cnpq.br/

SEPN 509 - Quadra 507 - Bloco B - Ed. Sede

70.740-001 - Brasilia - DF

Carmen Lucia Borges Negraes, International Cooperation Office

Tel: 55-(61) 2108-9433, Fax: 55-(61) 2108-9437 / 9442; cnegraes@cnpq.br

Fundação de Amparo à Pesquisa do Estado de São Paulo

http://www.fapesp.br

R. Pio XI, 1500 - Alto da Lapa - CEP 05468-901 - São Paulo/SP - Brasil

Prof. Leandro R. Tessler, Universidade Estadual de Campinas

Tel: 55-19-7885380, Fax: 55-19-7885376; tessler@ifi.unicamp.br

Natural Sciences and Engineering Research Council (NSERC)

http://www.nserc.ca/

CANADA

350 Albert Street, Ottawa, Canada K1A 1H5

Dr. Denis Leclerc, Manager, Policy and International Relations

Tel: 613-992-3445, Fax: 613-947-5645, denis.leclerc@nserc.ca

CHILE Comisión Nacional de Investigación Científica y Tecnológica (CONICYT)

http://www.conicyt.cl/

Bernarda Morin 545, Providencia, Santiago de Chile

María Teresa Ramírez, Departamento de Relaciones Internacionales

Tel.: 56-23654404; Fax.: 56-2-2741897; mramirez@conicyt.cl

COLOMBIA Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología (COLCIENCIAS)

http://www.colciencias.gov.co/

Tranversal 9A Bis No. 132-28, Bogota DC

Dr. Rafael Maria Guti?rrez, Subdirector de Programas de Desarrollo Científico y Tecnológico

Tel: 57-1-625-8480, Fax: 57-1-625-1788, mgutierrez@colciencias.gov.co

MEXICO Consejo Nacional de Ciencia y Tecnología (CONACYT)

http://www.conacyt.mx/

Insurgentes Sur 1582, Col. Crédito Constructor, Del. Benito Juarez

Mexico DF 03940

Lic. José Lever Huffmaster, Director de Desarrollo y Cooperación

Tel: 52-55-53227700, ext. 6600; Fax: 52 -55- 53227668

jlever@conacyt.mx

PERU

## Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica

http://www.concytec.gob.pe

Calle del Comercio 197, San Borja, Lima 41, Perú.

Dr. Juan Tarazona Barboza, Director General de Programas

Tel: 511- 225 1150 ext. 1201, Fax: 511- 2251150 ext. 1205,

jtarazona@concytec.gob.pe

#### Africa-USA Materials Collaboration Contacts:

ALGERIA

## Ministère de l'enseignement superieur et de la recherche scientifique

129 Chemin Mohamed Gacem El Madania, Algiers, Algeria

Prof. Houria Rebbah, Directrice

Tel: (213) 21-27-97-33; drsdt@wissal.dz

Dr. Charif Merouane

Tel: (213)21-27-63-24; Fax: (213) 21-27-63-24; othdrsdt@yahoo.fr;

**EGYPT** 

#### **Academy for Scientific Research and Technology**

http://www.asrt.sci.eg/

Prof. Nabil Ghoneim, National Committee for New and Advanced Materials

Tel.: 010 – 1980067; nmghoneim2005@yahoo.com

**ETHIOPIA** 

## **Ethiopian Science and Technology Commission**

Prof. Tsige Gebremariam, Associate Vice President for Research and Graduate Programs

Addis Ababa University

P.O. Box 1176, Addis Ababa, Ethiopia

Tel: +251-1-239756; Fax: +251-1-231087; Cellular: +251-9-242525; tsigegmw@phar.aau.edu.et

KENYA Kenya National Academy of Sciences

P.O. Box 39450-00623, Nairobi, Kenya

Tel: 254-020-3111714; Fax: 254-020-311715

Prof. Bernard O. Aduda, Dep. of Physics, University of Nairobi

P.O> Box 30197-00100 GPO Nairobi

boaduda@uonbi.ac.ke

Ministère de l'Education Nationale, de l'Enseignement Supérieur, de la Formation des Cadres et de la Recherche Scientifique

Direction de la Technologie

Prof. Dr. Khalid Riffi Temsamani, National Coordinator Materials Science

Tel: 00 212 37 706018; Fax: 00 212 37 737222; temsamani@enssup.gov.ma; krtemsamani@yahoo.fr

NAMIBIA Ministry of Mines and Energy

**MOROCCO** 

**NIGERIA** 

Room 314, 1 Aviation Road, Eros Airport, Windhoek, Namibia

Dr. Erasmus Shivolo

Tel: 264 61 2848261; Fax: 264 61 2848362; eshivolo@mme.gov.na

National Agency for Science and Engineering Infrastructure

Idu Industrial Area, Idu Abuja, Nigeria

Prof. Olusegun Adewoye

Tel: +234-805-5024934, +234-805-5024943, +234-803-3127195; oadewoye@yahoo.co.uk

RWANDA

Ministry of Education, Science, Technology and Scientific Research

Dr. Albert Mutesa

Direction de la Recherche Scientifique et Technologique

BP 622, Kigali, Rwanda

Tel: 25083052; Fax: 25082162; amutesa@mineduc.gov.rw

SENEGAL Université Cheikh Anta Diop de Dakar

B.P. 25114 Dakar-Fann, Dakar, Senegal

Prof. Aboubaker Chedikh Beye

Coordonateur National des Activités de Recherches en Science, Technologies et Ingénieurie des Matériaux

acbeye@refer.sn

#### SOUTH AFRICA

#### **National Research Foundation**

www.nrf.ac.za

## P.O. Box 2600, Pretoria, 0001 South Africa

Dr. Val Munsami, Manager, Science and Technology Agreements Fund

Tel: +27 12 481 4025; Fax: +27 12 481 4044; val@nrf.ac.za

#### **TANZANIA**

#### **Tanzania Commission for Science and Technology**

Ali Hassan Mwinyi Road; P.O. Box 4302; Dar es Salaam, Tanzania

Dr. Yadon Cohi, Director General

Tel: 255-222-700750; 255-222-775315; 255-748-781644(cell) Fax: 255222775314; ykohi@hotmail.com; ykohi@costech.or.tz

Ministry of Science, Technology and Higher Education Mr. Titus Mteleka, Director for Science and Technology

Bongoyo Road, House No. 14. Oyester Bay; Dar Es salaam, TanzaniaBox 2645, Dar Es Salaam, Tanzania

Tel: 255 22 2700443; Mteleka2000@yahoo.com

#### TUNISIA

## Ministry of Scientific Research, Technology and Competences Development

Dr. Hedi Zarrouk

Tel: 216-71537677; hedi.zarrouk@inrap.mrt.tn

#### UGANDA

## **National Council for Science and Technology**

Plot 3/5/7, Nasser Road

P.O. Box 6884, Kampala, Uganda

Dr. Dr. Peter Ndemere, Executive Secretary

Tel: 256-41705500 , 256-41250499; Fax: 256-41-234579; incst@starcom.co.ug

#### ZIMBABWE

## **Research Council of Zimbabwe**

Delken Complex Block A, Mount Pleasant Business Park

Mount Pleasant, Harare, Zimbabwe

Dr. Francis P. Gudyanga, Chairman

Tel: 263 4 369407/8; Fax: 263 4 369409; fpqudyanga@zarnet.ac.zw; secretary@rcz.ac.zw

#### Contacts in Europe:

AUSTRIA	Austrian Science Fund (FWF)
AUSTRIA	http://www.fwf.ac.at/en/index.asp
	Sensengasse 1 A - 1090 Vienna
	Dr. Andreas Zumbusch, Scientific Administrator
	Tel.: +43 1 50 56 740 Ext. 86, zumbusch@fwf.ac.at
FINLAND	Tekes, Finnish Funding Agency for Technology and Innovation
	http://www.tekes.fi
	P.O.Box 69, FIN - 00101 Helsinki, Finland
	Mrs. Sisko Sipila, Chief Technology Adviser
	Materials Technology
	Tel. +358 1060 55845, sisko.sipila@tekes.fi
	Academy of Finland: Research Council for Natural Sciences & Engineering
	http://www.aka.fi (also http://www.research.fi)
	P.O. Box 99, FIN - 00501 Helsinki
	Dr. Jan Bäckman , Science Adviser
	Tel. +358 9 7748 8394, jan.backman@aka.fi
FRANCE	Centre National de la Recherche Scientifique (CNRS)
	http://www.cnrs.fr
	3, rue Michel Ange
	75794 Paris Cedex 16, France
	Claire Giraud
	Deputy Director for the Americas, Office of European and International Relations
	Tel. 01 44 96 47 05, claire.giraud@cnrs-dir.fr
	Dr. Michel Lannoo
	Scientific Director, Mathematical and Physical Sciences

Tel. 01 44 96 42 52 michel.lannoo@cnrs-dir.fr

Dr. Gilberte Chambaud, Scientific Director, Chemistry

Tel. 01 44 96 40 98, sc-Directeur@cnrs-dir.fr

Dr. Pierre Guillon, Scientific Director, Engineering

Tel: 01 44 96 42 21, pierre.guillon@cnrs-dir.fr

GERMANY Deutsche Forschungsgemeinschaft

http://www.dfg.de/en/index.html

Kennedyallee 40, D-53175 Bonn, Germany

Dr. Burkhard Jahnen, Program Director for Materials Science and Engineering

Tel +49 2 28/8 85-2487, burkhard.jahnen@dfg.de

Other German Organizations

Will be coordinated through Dr. Burkhard Jahnen,

See above for contact information.

LUXEMBOURG Fonds National de la Recherche

http://www.fnr.lu

6, rue Antoine de Saint-Exupéry, P.O. Box 1777

L-1017 Luxembourg-Kirchberg

Mrs. Christiane Kaell

Tel: 00352-261925-34, christiane.kaell@fnr.lu

NORWAY The Research Council of Norway, Science and Technology Division

http://www.forskningsradet.no/english/

P.b. 2700

St. Hanshaugen

0131 Oslo, Norway

Dr. Aase Marie Hundere, Senior Adviser

Tel.+47-22037305, amh@rcn.no

SPAIN Ministry of Education and Science

http://www.mec.es/

Paseo de la Castellana 160

28070 Madrid - SPAIN

Dr. Carlos Prieto; cprieto@icmm.csic.es

Dr. Rosa Menéndez; rosa.menendez@mec.es; rosmenen@incar.csic.es

Tel. +34-91-349-4372

SWITZERLAND Swiss National Science Foundation

http://www.snf.ch/default\_en.asp

Wildhainweg 20

P.O. Box 8232

3001 Bern, Switzerland

Dr. Paul Burkhard, Division II - Mathematics, Natural & Engineering Sciences

Tel. 41-31-308 22 22, pburkhard@snf.ch

UKRAINE State Fund for Fundamental Research

http://www.dffd.gov.ua/

16 Shevchenko Blvd, Kyuv, 01601, Ukraine

Dr. Andrey Ragulya, Deputy Director, Institute for Problems in Materials Science

 $Tel: (+38-044) \\ 424-7435; Fax: (+38-044) \\ 424-1533; \ ragulya@materials. \\ kiev.ua$ 

UNITED Engineering & Physical Sciences Research Council (EPSRC)

KINGDOM http://www.epsrc.ac.uk

Polaris House

North Star Avenue, Swindon SN2 1ET, U.K.

Mr. Andrew Rendell, Associate Programme Manager, Materials

Tel. 44-(0)-1793 444260, andy.rendell@epsrc.ac.uk

Contacts in other countries or regions:

AUSTRALIA Australian Research Council (ARC)

http://www.arc.gov.au/arc home/default.htm

GPO Box 2702

Canberra ACT 2601, Australia

Prof. Margaret Clayton, Executive Director, Linkage International

Tel.: 02 6284 6685; margarte.clayton@arc.gov.au

CHINA National Natural Science Foundation of China (NSFC)

http://www.nsfc.gov.cn/

83 Shuangqing Road, Haidian District, Beijing, 100085, China

Dr. Li Ming, Director

Department of Engineering and Material Sciences

Tel.: 86-10-62327100/6844; Fax: 86-10-62327133; lim@mail.nsfc.gov.cn

INDIA Department of Science and Technology

http://dst.gov.in/

International Cooperation Division, Dep. of Science and Technology

Technology Bhawan

New Mehrauli Road, New Delhi - 110016, India

Shri. Y. P. Kumar, Scientist -G and Head

Tel: 91-11-26961912/ 26590430 Fax: 91-11-26862418;ypk@nic.in <mailto:ypk@nic.in>; kumaryp@hotmail.com <mailto:kumaryp@hotmail.com>

Dr. B.K. Jain; Scientist-G

Tel: 91-11-26961583/ 26590413 ; Fax: 91-11-26961583; jainbk@nic.in <mailto:jainbk@nic.in>; bhushankjain@yahoo.com <mailto:bhushankjain@yahoo.com>

ISRAEL Ministry of Science and Technology

www.most.gov.il

P.O. Box 49100, 91490 Jerusalem, Israel

Dr. Avraham Cohen, Director

Materials Research Division

Tel. +972-2-5411136; Fax +972-2-5815595; avraham@most.gov.il

RUSSIAN FEDERATION

Russian Foundation for Basic Research

http://www.rfbr.ru/

32a, Leninsky prospect, 11991, CSWP-1, Moscow, V-334, Russia

Dr. Vladimir Khromov, Director, International Relations Department

Tel: (095) 938-54-82; Fax: (095) 938-54-56; khromov@rfbr.ru

Tel: +65 68266132; Fax: +65 67798061; jasbir\_singh@a-star.edu.sg

**TAIWAN** 

#### **National Science Council**

http://web.nsc.gov.tw/

Prof. Dr. Kwang-Lung Lin, Director General, Department of International Cooperation

21F, 106 Ho-Ping E. Rd. Sec. 2, Taipei, Taiwan 10636

Tel: 886-2-2737-7558; Fax: 886-2-2737-7607; kllin@nsc.gov.tw

#### IX. OTHER INFORMATION

The NSF Website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this Website by potential proposers is strongly encouraged. In addition, MyNSF (formerly the Custom News Service) is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Regional Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. MyNSF also is available on NSF's Website at http://www.nsf.gov/mynsf/.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this new mechanism. Further information on Grants.gov may be obtained at http://www.grants.gov.

#### **ABOUT THE NATIONAL SCIENCE FOUNDATION**

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities

that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov

> Location: 4201 Wilson Blvd. Arlington, VA 22230

 For General Information (703) 292-5111

(NSF Information Center):

• TDD (for the hearing-impaired): (703) 292-5090

To Order Publications or Forms:

Send an e-mail to: pubs@nsf.gov

or telephone: (703) 292-7827

 To Locate NSF Employees: (703) 292-5111

#### PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records, " 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton Reports Clearance Officer Division of Administrative Services National Science Foundation Arlington, VA 22230

Policies and Important Links | Privacy |

FOIA



Last Updated: 06/09/05 Text Only

