

Center for Synthesis in Biological Evolution (CSBE)

Program Solicitation

NSF 03-570



National Science Foundation
Directorate for Biological Sciences

Preliminary Proposal Due Date(s) *(required)*

September 17, 2003
(due by 5 p.m. proposer's local time)

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

February 01, 2004
BY INVITATION ONLY

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Center for Synthesis in Biological Evolution (CSBE)
Special Competition

Synopsis of Program:

This solicitation requests proposals to establish a Center for Synthesis in Biological Evolution. This Center will serve the needs of the evolutionary biology community by providing mechanisms to foster synthetic, collaborative, cross-disciplinary studies. It will play a pivotal role in the further unification of the biological sciences as it draws together knowledge from disparate biological fields to increase our general understanding of biological design and function. Finally, the Center will play a critical role in organizing and synthesizing evolutionary knowledge that will be useful to policy makers, government agencies, educators and society.

Cognizant Program Officer(s):

- Samuel M. Scheiner, Program Director, Directorate for Biological Sciences, Division of Environmental Biology, 635 N, telephone: (703) 292-8481, fax: (703) 292-9064, email: sscheine@nsf.gov
- Gerald F. Guala, Program Director, Directorate for Biological Sciences, Division of Biological Infrastructure, 615 N, telephone: (703) 292-8470, fax: (703) 292-9063, email: gguala@nsf.gov

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

- 47.074 --- Biological Sciences

Eligibility Information

- **Organization Limit:** None Specified.
- **PI Eligibility Limit:** None Specified.
- **Limit on Number of Proposals:** None Specified.

Award Information

- **Anticipated Type of Award:** Cooperative Agreement
- **Estimated Number of Awards:** 1
- **Anticipated Funding Amount:** \$3,000,000 per year, pending availability of funds.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Preliminary Proposals:** Submission of Preliminary Proposals is required. Please see the full text of this solicitation for further information.
- **Full Proposal Preparation Instructions:** This solicitation contains information that supplements the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

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

C. Due Dates

- **Preliminary Proposals (required) :**
September 17, 2003
(due by 5 p.m. proposer's local time)
- **Full Proposal Deadline Date(s)** (due by 5 p.m. proposer's local time):
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Proposal Review Information

- **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.

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I. INTRODUCTION

Evolution has long served to unify the study of biology. Today, evolution has taken on an even greater role, as it serves to inform, facilitate, and direct data acquisition, integration, analysis and interpretation across the life sciences. This transformation comes in part from an explosion of raw data, from sources as far ranging as whole genome sequences and phylogenetics to long-term behavior studies and functional morphology. Such data and metadata can only be interpreted using advanced mathematical and statistical approaches built on evolutionary concepts. Implementation depends on highly developed database management and analysis tools.

As formerly disparate fields of biological research converge, evolutionary biology is providing the common language. Evolutionary biology is poised to serve as the focal point for the synthesis and interpretation of these massive and growing data sets. Evolutionary biology can also play a central role in addressing issues of national concern, such as infectious diseases, invasive species, antibiotic resistance, and biodiversity.

There is no current enterprise dedicated to the consolidation, synthesis and dissemination of the broad sweep of evolutionarily relevant information. The National Science Foundation recently funded two workshops aimed at addressing the scientific and national needs for an evolutionary synthesis center and proposing mechanisms to meet these needs [see report at: <http://esc.eeb.yale.edu>]. A center for evolutionary synthesis will serve the needs of the evolutionary community by providing mechanisms to foster synthetic, collaborative, cross-disciplinary studies. The center would also play a pivotal role in the further unification of the biological sciences as it draws together knowledge from disparate biological fields to increase our general understanding of biological design and function. Finally, the center would play a critical role in organizing and synthesizing evolutionary knowledge that will be useful to policy makers, government agencies, educators and society.

II. PROGRAM DESCRIPTION

The goal of the Center for Synthesis in Biological Evolution is to serve as a catalyst to advance our fundamental understanding of evolutionary patterns and processes. Its primary mission will be to foster synthesis activities across all of evolutionary biology, including but not limited to: population genetics, evolution of development, comparative genomics, paleontology, evolutionary physiology, evolutionary ecology, systematics, biogeography, and molecular evolution. In addition, this center will help foster the development of key tools and cross-disciplinary standards for biological information and meta-information databasing and analysis with broad utility beyond evolutionary synthesis. Activities at the Center for Synthesis in Biological Evolution will help generate diverse human resources and a scientific culture committed to evolutionary synthesis.

The Center can accomplish these goals by a variety of mechanisms. One blueprint is provided by the workshop report <http://esc.eeb.yale.edu>. We stress, however, that other formats and ranges of activities are possible. We urge broad and creative thinking about the form, structure, and mission of a Center for Synthesis in Biological Evolution. However, primary data gathering should not be a central component of Center activities. Conversely, the Center must broadly serve the needs of evolutionary biology.

Center Director

Because the Center Director is essential to the successful operation of the CSBE, the qualifications of the Director are crucial. The Director will be responsible for management and staffing; for the design and maintenance of both appropriate oversight and effective communication with the research community and the general public; for the procurement, use, maintenance, and control of equipment, supplies, and facilities; and for management of the research funds allocated to the CSBE. The principal investigator of the proposal should be the anticipated Center Director. Note that no co-PIs are permitted.

Proposal Content

All proposals should address the following areas:

- *Rationale for the Center*: Clearly indicate what unique opportunities will be met by the proposed center.
- *Description of Synthesis Activities*: Describe in detail the range and modes of synthesis activities that the center will support in sufficient detail to allow assessment of their merit. Explain the selection criteria and mechanisms for visiting or fixed-term personnel, individuals and groups, including those for ensuring broad participation by the scientific community.
- *Education and outreach*: Provide a detailed description of the educational and outreach activities the center will undertake, including international activities. Clearly outline plans for: attracting and involving students at all educational levels (K-16 and beyond), especially with regard to increasing participation of members of underrepresented groups.
- *Communication, knowledge transfer, and informatics*: Describe plans for linking with appropriate communities and institutions beyond the sponsoring institution, e.g., other colleges, universities, disciplinary subfields, other disciplines, nonprofit research organizations, government laboratories, or industry, to enhance involvement and knowledge transfer. Describe plans for enhancing efforts in evolutionary biology with regard to informatics, data curation, and cross-disciplinary integration of data, including plans for logistic support for remote users of CSBE capabilities.
- *Management plan*: Provide a description of the organizational structure of the Center. Outline mechanisms for selecting projects, allocating funds and equipment, and managing the participating scientific groups. Describe plans for external oversight and reporting.
- *Institutional capabilities*: Provide a description of how the current capabilities and resources of the host institution will facilitate the proposed synthesis activities. Include information on organizational leadership, technical expertise, general support, and

maintenance as well as space, infrastructure and technologies for synthesis, analysis, and communication. Describe how the probable location of the Center will effect its success, including any unique characteristics of the institution or location, including ease of travel to and accommodations at or near the Center for visitors.

The proposal should **NOT** specify the membership of any oversight or executive board, but it should indicate how such a board will be recruited and constituted.

The proposal should clearly and concisely justify Center support. Especially important general considerations are: focus, breadth of vision, education and outreach including international dimensions; communication and knowledge transfer; rationale for a Center-mode of activities; and management plan. We emphasize that this proposal is **NOT** a research plan; rather it is a plan for how synthesis activities will be fostered.

III. ELIGIBILITY INFORMATION

The categories of proposers identified in the [Grant Proposal Guide](#) are eligible to submit proposals under this program announcement/solicitation.

IV. AWARD INFORMATION

The initial term of the award will be 5 years, with the potential for renewal for another 5 years. We anticipate a budget of up to \$3.0M per year. We strongly encourage creative thinking about the potential range of activities that might occur at a CSBE and their budgetary needs. The estimated budget is, as always, subject to the availability of funds.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Preliminary Proposals (required):

The preliminary proposal must contain the following information:

1. Description of the range and modes of synthesis activities that the center will support (up to 3 pages)
2. Brief description of the organizational structure of the Center (up to 2 pages)
3. List of primary individuals and major institutions that would be involved in the establishment of the Center (up to 1 page)
4. Capabilities of the institution to host and manage the Center (up to 1 page)

Following review of the preliminary proposals, proposers with promising programs will be invited to submit a full proposal. Comments of the preliminary proposal reviewers will be considered during review of the full proposals.

Preliminary proposals are submitted through Fastlane. Be sure to check the preliminary proposal box on the cover page.

Full Proposal Instructions:

Proposals submitted in response to this program announcement/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: <http://www.nsf.gov/cgi-bin/getpub?gpg>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

Full proposal submission will be by invitation only.

The following information supplements the GPG instructions.

Each proposal must contain the following elements, which should be placed in the Project Description:

1. *Rationale for the Center*: Clearly indicate what unique opportunities will be met by the proposed center. (up to 1 page)
2. *Description of Synthesis Activities*: Describe in detail the range and modes of synthesis activities that the center will support in sufficient detail to allow assessment of their merit. Explain the selection criteria and mechanisms for visiting or fixed-term personnel, individuals and groups, including those for ensuring broad participation by the scientific community. (up to 8 pages)
3. *Education and outreach*: Provide a detailed description of the educational and outreach activities the center will undertake, including international activities. Clearly outline plans for: attracting and involving students at all educational levels (K-16 and beyond), especially with regard to increasing participation of members of underrepresented groups. (up to 3 pages)
4. *Communication, knowledge transfer, and informatics*: Describe plans for linking with appropriate communities and institutions beyond the sponsoring institution, e.g., other colleges, universities, disciplinary subfields, other disciplines, nonprofit research organizations, government laboratories, or industry, to enhance involvement and knowledge transfer. Describe plans for enhancing efforts in evolutionary biology with regard to informatics, data curation, and cross-disciplinary integration of data, including plans for logistic support for remote users of CSBE capabilities. (up to 3 pages)
5. *Management plan*: Provide a description of the organizational structure of the Center. Outline mechanisms for selecting projects, allocating funds and equipment, and managing the participating scientific groups. Describe plans for external oversight and reporting. (up to 3 pages)
6. *Institutional capabilities*: Provide a description of how the current capabilities and resources of the host institution will facilitate the proposed synthesis activities. Include information on organizational leadership, technical expertise, general support, and maintenance as well as space, infrastructure and technologies for synthesis, analysis, and communication. Describe how the probable location of the Center will effect its success, including any unique characteristics of the institution or location, including ease of travel to and accommodations at or near the Center for visitors. (up to 2 pages)

The total project description may be up to 20 pages within the guidelines given above.

Proposers are reminded to identify the program announcement/solicitation number (03-570) in the program announcement/solicitation block on the proposal Cover Sheet. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost Sharing:

Cost sharing is not required in proposals submitted under this Program Solicitation.

C. Due Dates

Proposals must be submitted by the following date(s):

Preliminary Proposals (required):

September 17, 2003
(due by 5 p.m. proposer's local time)

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

February 01, 2004
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D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this announcement/solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: <http://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 announcement/solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this announcement/solicitation.

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. Proposers are no longer required to provide a paper copy of the signed Proposal Cover Sheet to NSF. Further instructions regarding this process are available on the FastLane Website at: <http://www.fastlane.nsf.gov>

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority-serving institutions, or adjacent disciplines to that principally addressed in the proposal.

The National Science Board approved revised criteria for evaluating proposals at its meeting on March 28, 1997 ([NSB 97-72](#)). All NSF proposals are evaluated through use of the two merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

On July 8, 2002, the NSF Director issued [Important Notice 127](#), Implementation of new Grant Proposal Guide Requirements Related to the Broader Impacts Criterion. This Important Notice reinforces the importance of addressing both criteria in the preparation and review of all proposals submitted to NSF. NSF continues to strengthen its internal processes to ensure that both of the merit review criteria are addressed when making funding decisions.

In an effort to increase compliance with these requirements, the January 2002 issuance of the GPG incorporated revised proposal preparation guidelines relating to the development of the Project Summary and Project Description. Chapter II of the GPG specifies that Principal Investigators (PIs) must address both merit review criteria in separate statements within the one-page Project Summary. This chapter also reiterates that broader impacts resulting from the proposed project must be addressed in the Project Description and described as an integral part of the narrative.

Effective October 1, 2002, NSF will return without review proposals that do not separately address both merit review criteria within the Project Summary. It is believed that these changes to NSF proposal preparation and processing guidelines will more clearly articulate the importance of broader impacts to NSF-funded projects.

The two National Science Board approved merit review criteria are listed below (see the [Grant Proposal Guide](#) Chapter III.A for further information). 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 he/she is qualified to make judgments.

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

- *Effect of the Center on the infrastructure of evolutionary biology:* The potential of the proposed Center and its activities to increase the level of synthesis, to contribute to fundamental knowledge, and to enhance informatics efforts.
- *Institutional capabilities and management plan:* The ability of the institution to effectively host the Center. The likely effectiveness of the management plan. Qualifications of the Center Director. Additional issues include reasonableness and appropriateness of the budget.

Following panel review, site reviews will be done for one or more finalists. The analysis by the site review teams will be critical in making the final award recommendation.

B. Review Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by 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.

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 Director. In addition, the proposer will receive an explanation of the decision to award or decline funding.

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.

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 Division 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.A. 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 (NSF-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 agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/home/grants/grants_gac.htm. 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 is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at <http://www.nsf.gov/cgi-bin/getpub?gpm>. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Website at <http://www.gpo.gov>.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for the PI and all Co-PIs. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project reporting system, available through FastLane, for preparation and submission of annual and final project reports. This system permits electronic submission and updating of project reports, including information on project participants (individual and organizational), activities and findings, publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding this program should be made to:

- Samuel M. Scheiner, Program Director, Directorate for Biological Sciences, Division of Environmental Biology, 635 N, telephone: (703) 292-8481, fax: (703) 292-9064, email: sscheine@nsf.gov
- Gerald F. Guala, Program Director, Directorate for Biological Sciences, Division of Biological Infrastructure, 615 N, telephone: (703) 292-8470, fax: (703) 292-9063, email: gguala@nsf.gov

For questions related to the use of FastLane, contact:

- Elaine Washington, Program Technology Analyst, Directorate for Biological Sciences, Division of Environmental Biology, telephone: (703) 292-8481, fax: (703) 292-9064, email: biofl@nsf.gov

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at <http://www.nsf.gov/cgi-bin/getpub?gp>. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

Many NSF programs offer announcements or solicitations concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices. Any changes in NSF's fiscal year programs occurring after press time for the *Guide to Programs* will be announced in the NSF *E-Bulletin*, which is updated daily on the NSF Website at <http://www.nsf.gov/home/ebulletin>, and in individual program announcements/solicitations. Subscribers can also sign up for NSF's *Custom News Service* (<http://www.nsf.gov/home/cns/start.htm>) to be notified of new funding opportunities that become available.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Awardees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities and persons with disabilities to compete fully in its programs. In accordance with Federal statutes, regulations and NSF policies, no person on grounds of race, color, age, sex, national origin or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF, although some programs may have special requirements that limit eligibility.

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the GPG Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

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** (NSF Information Center): (703) 292-5111

- **TDD (for the hearing-impaired):** (703) 292-5090 or (800) 281-8749

- **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; 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 applicant 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 needing information as part of the review process or in order to coordinate programs; 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," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). 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 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 this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne Plimpton, Reports Clearance Officer, Division of Administrative Services, National Science Foundation, Arlington, VA 22230.

OMB control number: 3145-0058.



The National Science Foundation

4201 Wilson Boulevard, Arlington, Virginia 22230, USA

Tel: 703-292-5111, FIRS: 800-877-8339 | TDD: 703-292-5090 or (800) 281-8749

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