

Developing Global Scientists and Engineers

Program Solicitation

NSF 04-036

Replaces Document NSF 03-559



National Science Foundation

Directorate for Social, Behavioral, and Economic Sciences
Office of International Science and Engineering

Full Proposal Target Date(s):

For Doctoral Dissertation Enhancement Project (DDEP) proposals:

Proposals may be submitted at any time

For International Research Experiences for Students (IRES) proposals:

September 15, annually, for activities for the subsequent summer;

February 15, annually, for activities at other times

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Developing Global Scientists and Engineers

Synopsis of Program:

In response to a world in which science and engineering are increasingly global in scope, NSF's Office of International Science and Engineering (OISE) program has restructured its programs. One of the focal areas of OISE activity will be providing international research and education experiences for U.S. students and junior researchers. This solicitation addresses opportunities for international research and education for early career stages of scientists and engineers, i.e., as undergraduates and graduate students.

For the United States to remain at the forefront of world science and technology, it needs an educated science and engineering workforce capable of operating in the international research environment and a global market. OISE programs complement and enhance the Foundation's broader research and education portfolio and provide a set of programs designed to assist young scientists and engineers at several critical stages early in their careers. This solicitation describes support for International Research Experiences for Students (IRES) at the undergraduate and graduate level and support for Doctoral Dissertation Enhancement Projects (DDEP). The goal of these activities, and the related activities described below, is to build a more inclusive and globally-engaged workforce that fully reflects the strength of our diverse population.

In addition to the activities described in this solicitation, the Office of International Science and Engineering supports other targeted international research and education experiences for early-career scientists and engineers via the Research Experience for Undergraduates program, the East Asia and Pacific Summer Institutes for U.S. Graduate Students, the Pan-American Advanced Studies Institutes (for advanced graduate students and post-doctoral fellows), and the International Research Fellowship Program (for post-doctoral fellows or new faculty). More information is provided below in Section IX. Other Programs of Interest.

Cognizant Program Officer(s):

- Please see the full text of this funding opportunity for contact information.

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

- 47.075 --- Social, Behavioral and Economic Sciences
- 47.078 --- Office of Polar Programs
- 47.049 --- Mathematical and Physical Sciences
- 47.050 --- Geosciences
- 47.041 --- Engineering
- 47.076 --- Education and Human Resources
- 47.070 --- Computer and Information Science and Engineering
- 47.074 --- Biological Sciences

Eligibility Information

- **Organization Limit:**

Proposals must be submitted by a U.S. institution, organization, or professional society.

- **PI Eligibility Limit:**

Proposals must be submitted by a U.S. institution, organization, or professional society on behalf of the participant(s).

- **Limit on Number of Proposals:** No concurrent proposals.

Award Information

- **Anticipated Type of Award:** Standard Grant
- **Estimated Number of Awards:** 40 annually
- **Anticipated Funding Amount:** \$900,000 pending availability of funds

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **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:**

No indirect costs are allowable on Doctoral Dissertation Enhancement Projects (DDEP) proposals. For International Research Experiences for Students (IRES) proposals, indirect costs are allowable, consistent with NSF's general policy (see Grant Proposal Guide, Section II.C.2.g). Off-campus rates are applicable to activities at foreign sites. Indirect costs may not be applied to: (a) participant support, including costs incurred on behalf of foreign participants, or (b) awards made primarily on behalf of graduate students. Indirect costs are normally applicable to travel (including transportation and living expenses). (See Grant Proposal Guide (GPG) at <http://www.nsf.gov/cgi-bin/getpub?gpg>).

- **Other Budgetary Limitations:** Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

- **Full Proposal Target Date(s):**
For Doctoral Dissertation Enhancement Project (DDEP) proposal:

Proposals may be submitted at any time

For International Research Experiences for Students (IRES) proposals:

September 15, annually for activities for the subsequent summer February 15, annually for activities at other times

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

This solicitation addresses opportunities for international research and education for the early career stages of scientists and engineers, i.e., as undergraduate and graduate students.

For the United States to remain at the forefront of world science and technology, it needs an educated science and engineering workforce capable of operating in the international research environment and a global market. OISE programs complement and enhance the Foundation's broader research and education portfolio and provide a set of programs designed to assist scientists and engineers at several critical stages early

in their careers. This solicitation describes support for research experiences for undergraduate and graduate students, and support for doctoral dissertation enhancement awards. The goal of these activities, and the related activities described below, is to build a more inclusive and globally-engaged workforce that fully reflects the strength of our diverse population.

NSF does not normally provide support for technical assistance, pilot plant efforts, research requiring security classification, development of products for commercial marketing or market research for a particular project or invention. Similarly, research with disease-related goals, including work on the etiology, diagnosis or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals, is normally not supported by OISE.

For a summary of all OISE supported activities, including other programs that contribute to development of a cadre of global scientists and engineers, check the OISE homepage for its [Overview of Programs](#).

II. PROGRAM DESCRIPTION

The Office of International Science and Engineering (OISE) supports international research and education experience for U.S. scientists early in their careers. This solicitation describes opportunities for two such activities:

A. International Research Experiences for Students (IRES)

OISE accepts proposals to develop opportunities to introduce small groups of U.S. undergraduate and/or graduate students to foreign science and engineering in the context of a research experience which will also provide personal contacts on which to build future international collaboration. The goal is to provide U.S. student participants with a global perspective and opportunities for professional growth through international cooperative research training, networking and mentoring. Proposals are accepted from academic research institutions, professional societies, or consortia on behalf of a small group of students in a particular field, and proposals involving more than one institution are encouraged. Proposals should describe the intellectual focus of the project, the nature of the international partnership, arrangements for mentoring and for placing each student within an appropriate academic and/or industrial setting, obtaining housing for students, and providing them with an introduction to the culture of the host country. The proposal should specify the criteria to be used to select the students, as well as plans to evaluate the impact of the project; if benefits from the international research experiences extend to U.S. students who did not travel, but participated through activities at the U.S. home institution(s), the evaluation plan should also assess the impact on such students. Organizers are encouraged to consult with an OISE program officer before submitting their proposal.

A good source of general information for PI's planning to take students abroad, which proposers may find valuable, is a recent OISE publication entitled "Looking Beyond the Borders: A Project Director's Handbook of Best Practices for International Research Experiences for Undergraduates", available at <http://www.nsf-tokyo.org/REU/index.html>.

B. Doctoral Dissertation Enhancement Projects (DDEP)

OISE supports dissertation research conducted by graduate students at a foreign site. Students are expected to work in close cooperation with a host country institution and investigator. The applicant is responsible for making all necessary arrangements with the host country institution and scientist. The doctoral faculty advisor, on behalf of the student, submits the dissertation enhancement proposal. Eligible students should be U.S. citizens or permanent residents enrolled in Ph.D. programs at U.S. institutions. Students from developing countries who are enrolled in Ph.D. programs at U.S. institutions may also apply, but preference is given to qualified U.S. applicants. Before applying, applicants should investigate the dissertation enhancement programs that NSF supports in several disciplines; many of these programs allow for greater budget flexibility when there is an international dimension to the project. Proposals cannot be submitted for simultaneous review to both a research directorate and OISE for the same dissertation project.

C. Additional Considerations

1. Regional considerations: For a summary of OISE program activities supported in geographic regions of the world, select the region's name to link to the OISE regional page to identify a program officer who can provide advice concerning cooperative activities with a specific country or international organization.
 - [Africa, Near East, and South Asia \(ANESA\)](#)
 - [The Americas \(AMERICAS\)](#)
 - [Central and Eastern Europe \(CEE\)](#)
 - [East Asia and the Pacific \(EAP\)](#)
 - [Western Europe \(WE\)](#)
2. Responsibilities of principal investigators: PIs are responsible for obtaining any required visas for foreign travel and, through the U.S. host research institution, for providing documentation in support of U.S. visas for foreign counterpart investigators. When applying for

visas to enter countries with which NSF has formal bilateral agreements, participants should indicate specifically that the visit would be under a cooperative program between NSF and that foreign country or international organization. PIs are also responsible for obtaining research permits and import/export documents, where necessary. PIs should consult NSF's web page "[Information for U. S. Travelers](#)"; among other things, this page includes information regarding the collection of genetic resources outside the U.S.

3. Counterpart applications: For some countries and projects, U.S. investigators and their foreign partners are required to submit separate proposals to the NSF and to a designated foreign funding institution or multilateral organization in the partner's country or region. In these cases, NSF and the other funding institution(s) independently review the respective U.S. and foreign counterpart proposals. Sometimes joint approval of cooperative activities involving international research and education experiences for students is required before NSF can fund the U.S. proposal.
4. A National Science Board Report ([NSB 00-217](#)) recommended "NSF should take a more active role in facilitating cooperation in international S & E and higher education with developing countries." Because NSF funds primarily cover the U.S. side of international collaborative activities, PIs are encouraged to work with individuals and/or institutions that have garnered substantial long-term support for research activities, and/or to assist their foreign collaborators in garnering such support.

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

Anticipated annual funding for FY2005 and subsequent years is estimated as:

- International Research Experiences for Students (IRES): up to 20 awards, \$600,000;
- Doctoral Dissertation Enhancement Projects (DDEP): 20 awards, \$300,000.

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

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.

In addition to the GPG, OISE proposals must be prepared in accordance with the instructions in this Program Solicitation. **Proposals that do not contain the required information as described below will be considered incomplete and may be returned without review.**

1. **Proposal Cover Sheet.** When using Fastlane, from the selection list, choose NSF solicitation number 04-36. Enter the proposal title beginning with "International:" followed by the descriptive title of the planned activities. Select the checkbox for "International Cooperative Activity" and name the relevant country or countries. Failure to submit this information may delay processing.
2. **OISE Cover Page Addendum.** See [Appendix I](#). When using Fastlane, this Addendum will be listed as a form for completion after the NSF Cover Sheet has been saved with the OISE Program Solicitation selected. Submit this information as a supplemental document when requesting a supplement to an existing award.

3. **Project Summary.** Include information on the collaborative aspects of the project as well as the scientific research and educational activities. Intellectual merit and broader impacts anticipated from the international activity must be addressed in separate paragraphs.

4. **Project Description and Results from Prior NSF Support.** Project descriptions for OISE should address issues of special importance to the proposed activity, as described below. Information on Results of Prior NSF Support, not to exceed 2 pages, should be included within this 15-page Project Description section.
 - 4a. **Specifically for International Research Experiences for Students (IRES):**
 - Rationale and intellectual focus of proposed activity for developing global scientists and engineers.
 - Description of the intellectual collaboration with, and intellectual contributions from, the foreign collaborator.
 - Significance/benefits of host location to proposed activity and description of facilities, equipment, and other resources available at proposed site(s).
 - Nature of proposed activities (mentoring, research training, examples of research projects in which students will engage).
 - Details on recruitment and selection of students, including selection criteria and planned efforts to attract members of underrepresented groups.
 - Description of any plans for using U.S. host institution's resources to strengthen program content (e.g., taking advantage of campus IT, language and cultural instruction).
 - Information about significant research and education/mentoring expertise of the foreign partner(s).
 - Arrangements for housing, health insurance and other logistics.
 - Plans for project evaluation and tracking of participants.

 - 4b. **Specifically for Doctoral Dissertation Enhancement Projects (DDEP):**
 - Research objectives and methodology.
 - Description of cooperative arrangement/division of labor/complementary expertise, including identification of host researchers or mentors.
 - Details on the scientific significance of the host country/counterpart institution.
 - A description of the role of the foreign institution/country in the graduate student's thesis and career objectives and tentative schedule of activities during stay abroad.
 - Expected scientific/engineering and mutual international benefits to be derived from the project.

5. **Biographical sketch of foreign counterpart(s).** In English; maximum of two pages per person, compliant with GPG guidelines.

6. **Current and Pending Support of Principal Investigator(s).** A list of all current and pending research and travel support from any source.

7. **Special Information/Supplementary Documentation.** Letter of endorsement signed by a senior investigator with the counterpart host institution.

Proposers are reminded to identify the program announcement/solicitation number (04-036) 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.

Indirect Cost (F&A) Limitations:

No indirect costs are allowable on Doctoral Dissertation Enhancement Projects (DDEP) proposals. For International Research Experiences for Students (IRES) proposals, indirect costs are allowable, consistent with NSF's general policy (see Grant Proposal Guide, Section II.C.2.g). Off-campus rates are applicable to activities at foreign sites. Indirect costs may not be applied to: (a) participant support, including costs incurred on behalf of foreign participants, or (b) awards made primarily on behalf of graduate students. Indirect costs are normally applicable to travel (including transportation and living expenses). (See Grant Proposal Guide (GPG) at <http://www.nsf.gov/cgi-bin/getpub?gpg>).

Other Budgetary Limitations:

Maximum award sizes:

1. IRES: \$35,000 per year for up to 3 years;
2. DDEP: \$15,000 per award for up to 2 years.

Budget Preparation Instructions:

Before preparing an OISE proposal, proposers should refer to the following information, which describes special considerations and funding provisions for certain geographical regions or countries.

OISE support is primarily for the U.S. researcher's costs incurred as a result of the international cooperation. Support for PI salaries, major pieces of equipment, and large amounts for materials and supplies are not provided. Proposals requiring such support can be submitted to the appropriate disciplinary or interdisciplinary research program.

Proposers are encouraged to work with their foreign counterpart to develop realistic budget requests for their living expenses. In all cases, the requested amount for living expenses cannot exceed the authorized U.S. Government per diem rates (calculated at the authorized daily rate for the first 30 days of a single project visit, and 50 percent of that rate for all time after that.) The 30 days is not aggregated from multiple visits. Per diem rates can be viewed at: <http://www.state.gov/m/a/als/prdm>.

For most OISE programs, the foreign participant should obtain his/her own funding for participation in the cooperative project. However, when the foreign participant is from a developing country or a country whose economy is in transition, some support may be provided. Various approaches to cost-effective, reciprocal arrangements can be considered, and should be discussed with the relevant OISE program officer.

By law, U.S. flag carriers must be used whenever possible (see para. 761.2 and 761.3 of the Grant Policy Manual at <http://www.nsf.gov/cgi-bin/getpub?gpm>).

Allowable budgetary costs normally include:

- Support for international travel and associated living and research costs, not to exceed 90 days per visit, for the U.S. participant(s) at the foreign site.
- Publication and communication charges and minor equipment and supply costs.
- Participant support costs, including stipends for U.S. students involved in an IRES project. Funds for student stipends (for IRES projects), travel, and subsistence should be included as Participant Support Costs.
- Exceptional allowable costs requiring prior consultation with the OISE program director include:

- Essential costs such as survey costs, translators, field assistance.
- Participant support costs, lodging, per-diem, health insurance or foreign travel for eligible foreign participants (from developing countries, countries whose economies are in transition, or from countries whose currency is not convertible.)

C. Due Dates

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

Full Proposal Target Date(s):

For Doctoral Dissertation Enhancement Project (DDEP) proposal:

Proposals may be submitted at any time

For International Research Experiences for Students (IRES) proposals:

September 15, annually for activities for the subsequent summer

February 15, annually for activities at other times

No deadlines apply for Doctoral Dissertation Enhancement Projects (DDEP); such proposals can be submitted at any time.

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: <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 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:

For International Science and Engineering Proposals:

In addition to the general NSF review criteria described above, the following criteria will be used in evaluating proposals submitted in response to this solicitation:

1. Mutually beneficial international activity with complimentary strengths in evidence.
2. International experience for students and/or junior researchers.
3. Novel and innovative activities.
4. Geographical and disciplinary balance within the OISE portfolio.

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 Ad Hoc, internal, 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.

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 proposers whether their proposals have been declined or recommended for funding within six months. The time interval begins on the closing date of an announcement/solicitation, or the date of proposal receipt, whichever is later. 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:

Appropriate OISE region/country program manager regarding proposal development, appropriate funding levels, and supplement opportunities and requirements. Contacts for cognizant program manager(s) are available from the [OISE home page](#).

For questions related to the use of FastLane, contact:

- Fastlane Helpdesk, email: fastlane@nsf.gov, or OISE Fastlane contact, email: intfl@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.

In June 2004 OISE circulated a Dear Colleague Letter (NSF 04-34) that describes how OISE has restructured its activities into three main areas: enabling planning and workshops that are likely to be catalytic and lead to innovative international projects, providing international research opportunities for U.S. students and early-career scientists and engineers, and building international partnerships within an institutional framework.

The solicitations for all of these activities can be found at the [OISE home page](#); the activities designed for building a cadre of Global Scientists and Engineers include this solicitation and:

A. International Research Postdoctoral Fellowships - NSF 02-149

This program introduces scientists and engineers at the post-doctoral or new faculty stage to research opportunities abroad, thereby furthering NSF's goal of establishing productive, mutually-beneficial relationships between U.S. and foreign science and engineering communities. These awards are available for research in any field of science and engineering research and education supported by NSF. Foreign science or engineering centers and other centers of excellence in all geographical regions are eligible host institutions.

B. Pan American Advanced Studies Institutes (PASI) – NSF 03-506,

This program is a jointly supported initiative between the Department of Energy (DOE) and the National Science Foundation (NSF). PASIs are short courses of two to four weeks duration, involving lectures, demonstrations, research seminars and discussion at the advanced graduate and post-doctoral level. PASIs aim to disseminate advanced scientific and engineering knowledge and stimulate training and cooperation among researchers of the Americas in the mathematical, physical, and biological sciences, and in engineering fields. Whenever feasible, an interdisciplinary approach is recommended.

C. East Asia and Pacific Summer Institutes for U.S. Graduate Students: NSF 03-608

The East Asia and Pacific Summer Institutes (EAPSI) provide U.S. graduate students in science and engineering first-hand research experience in Australia, China, Japan, Korea, or Taiwan, an introduction to the science and science policy infrastructure of the respective location, and orientation to the culture and language. The primary goals of EAPSI are to introduce students to East Asia and Pacific science and engineering within a research context, and to initiate personal relationships on which students can build future international collaborations. The 8-week institutes are administered in the United States by the National Science Foundation (NSF). The National Institutes of Health (NIH) co-sponsor the Summer Institute in Japan.

D. Research Experiences for Undergraduates (REU) with international dimensions: NSF 04-584

International REU projects feature quality interaction of students with U.S. faculty and/or foreign research mentors, access to appropriate facilities or sites and professional development opportunities. International REU projects can, but are not required to, involve partnering of an experienced REU project in the U.S. with international collaborators at a foreign institution. Successful projects build upon a shared commitment to research

and education in the area of focus. A report entitled “Looking Beyond the Borders: A Project Director’s Handbook of Best Practices for International Research Experiences for Undergraduates” is posted at <http://www.nsftokyo.org/REU/index.html>.

E. International Research and Education: Planning Visits and Workshops: NSF 04-35

International Planning Visit/Workshop awards can support the initial phases of developing and coordinating integrated research and education activities with foreign partners.

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 (FASED) 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>

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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.

Appendix I

Office of International Science and Engineering Cover Page Addendum

(When using Fastlane, this Addendum is listed as form for completion after the NSF Cover Sheet has been saved with the INT Program Solicitation selected. When requesting a supplement to an existing award, submit this information as a supplemental document.)

Country #1: _____
Country #2: _____
Country #3: _____

Proposal Category:

- Planning Visit or Workshop
- Developing Global Scientists and Engineers
- Partnerships for International Research and Education
- Multilateral organizations

Foreign Counterpart Investigator/Organizer/Host (Repeat as needed for up to three Foreign Counterpart Investigators/Organizers/Hosts)

Name: _____
Department: _____
Institution: _____
Address: _____

Phone: _____
Fax: _____

Email: _____

For Planning Visit or Workshop Location
City: _____
Country: _____
Start Date: _____
End Date: _____

Demographics (people that will be supported by this project):

Number of senior US scientists and engineers (excluding those within 6 years of their Ph.D. and graduate and undergraduate students): _____

Number of U.S. scientists within 6 years of the Ph.D. (including the PI and/or Co-PI if applicable): _____

Number of U.S. graduate students: _____

Number of U.S. undergraduate students: _____

Number of foreign scientists and engineers (including post-docs, graduate students and undergraduate students) associated with the foreign institution. Include only those that will be supported under this NSF proposal (if allowable, see Budgetary Limitations section). Do not count foreign participants that will be supported by non-NSF funds. _____

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