# **International Opportunities for Scientists and Engineers**

**Guidelines for Submission of Proposals** 

Program Solicitation NSF 03-559



#### **National Science Foundation**

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

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

#### **REVISIONS AND UPDATES**

The current program solicitation NSF 03-559 is made up of multiple components, both functional and region-specific with multiple deadlines. OISE will replace this program solicitation with three solicitations that are activity-based rather than geographically defined, i.e., one for planning and workshops; one for developing global scientists and engineers; and one to encourage international research and education partnerships. Given the pending issuance of these new program announcements, the deadlines for the regional programs as identified in the current program solicitation are no longer in effect as of June 1, 2004. OISE's three other program solicitations – International Research Fellowship Program (NSF 02-149), East Asia and Pacific Summer Institutes for U.S. Graduate Students (NSF 03-608), and Pan-American Advanced Studies Institutes Program (NSF 03-506) – will remain unchanged and in effect.

### Additional Date Information

INT has deadlines only where programs are specifically listed. For all other programs, proposals may be submitted any time during the year. Contact regional program officers with questions.

Second Tuesday in October

International Research Fellowships Program (IRFP): for guidelines see http://www.nsf.gov/cgi-bin/getpub?nsf02149

December 23, 2003 (Dec 10, yearly, subsequent yrs)

East Asia & Pacific Summer Institutes (EAPSI) for U.S. Grad Students in Australia, Japan, Korea, Taiwan, and China. For detailed information, see program announcement NSF 03-608 at <a href="http://www.nsf.gov/cgi-bin/getpub?nsf03608">http://www.nsf.gov/cgi-bin/getpub?nsf03608</a>.

January 15, yearly

The Americas: Pan American Advanced Studies Institutes (PASI); for guidelines see http://www.nsf.gov/cgi-

#### bin/getpub?nsf03506.

### February 1, yearly

Africa, Near East, and South Asian Region: All activities except planning visits that are accepted at any time

#### May 1, yearly

Americas (all countries except Chile): All activities except planning visits and dissertation enhancements that are accepted at any time.

#### May 1, yearly

Western Europe: All cooperative activities. Planning visits and dissertation enhancements are accepted anytime.

#### September 1, yearly

Africa, Near East, and South Asian Region: All activities except planning visits that are accepted at any time.

#### November 1, yearly

Americas (including Chile): All activities except planning visits and dissertation enhancement proposals that are accepted at any time. (This is the only deadline for proposals for collaborative activities with Chile.)

#### November 1, yearly

Western Europe: All cooperative activities. Planning visits and dissertation enhancements are accepted anytime.

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

#### **General Information**

#### **Program Title:**

International Opportunities for Scientists and Engineers Guidelines for Submission of Proposals

### **Synopsis of Program:**

The National Science Foundation recognizes the importance of enabling U.S. researchers and educators to advance their work through international collaboration, and of helping to ensure that future generations of U. S. scientists and engineers gain professional experience beyond this nation's borders early in their careers. The Office of International Science and Engineering (INT) contributes to NSF's mission by promoting **new** partnerships between U.S. investigators and their colleagues in other countries, or **new** cooperative projects between established collaborators. Such activities may be in any field of science and engineering research and education supported by NSF.

The Office of International Science and Engineering (INT) also supports an array of activities designed to provide opportunities for junior investigators. Graduate and undergraduate students and postdoctoral researchers can receive travel and living expenses to participate in the overseas aspects of collaborative research projects proposed to NSF by senior U.S. investigators. Graduate students can also be supported through INT's dissertation enhancement awards, or for participation in the East Asia & Pacific Summer Institutes (EAPSI) in Australia, Japan, Korea, Taiwan, or China. Principal Investigators (PI's) of existing grants from other parts of NSF may request supplemental support to include junior faculty members, postdoctoral investigators, graduate students, and qualified undergraduates who are conducting collaborative research in foreign countries.

For a summary of INT supported activities, check the Overview of Programs chart on the INT website.

## 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):

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

#### **Eligibility Information**

- Organization Limit: Proposals must be submitted by a U.S. institution, organization, or professional society, except for proposals for the International Research Fellowship Program (IRFP), fellowship opportunities with Japan, and for East Asia & Pacific Summer Institutes (EAPSI) in Australia, Japan, Korea, Taiwan or China, which accept applications from individuals. Individual applicants for these programs must be U.S. citizens or permanent residents.
- PI Eligibility Limit: Proposals must be submitted by a U.S. institution, organization, or professional society on behalf of the participant(s), except for the programs listed below, which accept applications from individuals who are U.S. citizens or permanent residents.
  - International Research Fellowship program (IRFP)
  - Research Fellowships in Japan Program
  - East Asia & Pacific Summer Institutes (EAPSI) in Australia, Japan, Korea, Taiwan, and China
- Limit on Number of Proposals: None Specified.

#### **Award Information**

- Anticipated Type of Award: Standard Grant
- Estimated Number of Awards: 600 Approximately 600 awards annually
- Anticipated Funding Amount: \$27,000,000 annually, approximately, 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:

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 to individuals, International Research

Fellowships, and awards made primarily on behalf of graduate students. Indirect costs are normally applicable to travel (including transportation and living expenses) when travel is incidental to the main purpose of the proposed project. Indirect costs are not applicable to travel when travel is the primary activity of the project and the principal item in the proposed budget. (See Grant Proposal Guide (GPG) at http://www.nsf.gov/cgi-bin/getpub?gpg.

• Other Budgetary Limitations: Not Applicable.

#### C. Due Dates

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

#### Additional Date Information

INT has deadlines only where programs are specifically listed. For all other programs, proposals may be submitted any time during the year. Contact regional program officers with questions.

### Second Tuesday in October

International Research Fellowships Program (IRFP): for guidelines see <a href="http://www.nsf.gov/cgi-bin/getpub?nsf02149">http://www.nsf.gov/cgi-bin/getpub?nsf02149</a>

## December 23, 2003 (Dec 10, subsequent yrs)

East Asia & Pacific Summer Institutes (EAPSI) for U.S. Grad Students in Australia, Japan, Korea, Taiwan, and China. For detailed information, see program announcement NSF 03-608 at http://www.nsf.gov/cgi-bin/getpub?nsf03608.

## January 15, yearly

The Americas: Pan American Advanced Studies Institutes (PASI); for guidelines see http://www.nsf.gov/cgi-bin/getpub?nsf03506.

#### February 1, yearly

Africa, Near East, and South Asian Region: All activities except planning visits that are accepted at any time

### May 1, yearly

Americas (all countries except Chile): All activities except planning visits and dissertation enhancements that are accepted at any time.

#### May 1, yearly

Western Europe: All cooperative activities. Planning visits and dissertation enhancements are accepted anytime.

### September 1, yearly

Africa, Near East, and South Asian Region: All activities except planning visits that are accepted at any time.

# November 1, yearly

Americas (including Chile): All activities except planning visits and dissertation enhancement proposals that are accepted at any time. (This is the only deadline for proposals for collaborative activities with Chile.)

## November 1, yearly

Western Europe: All cooperative activities. Planning visits and dissertation enhancements are accepted anytime.

• Merit Review Criteria: National Science Board approved criteria. Additional merit review considerations regarding international benefits 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

Support of international activities is an integral part of NSF's mission to sustain and strengthen the nation's science, mathematics, and engineering capabilities, and to promote the use of those capabilities in service to society. In particular,

NSF recognizes the importance of enabling U.S. researchers and educators to advance their work through international collaboration, and of helping ensure that future generations of U.S. scientists and engineers gain professional experience beyond this nation's borders early in their careers.

The Office of International Science and Engineering (INT) contributes to NSF's mission by promoting **new** partnerships between U.S. scientists and engineers and their foreign colleagues, or **new** cooperative projects between established collaborators. Activities can be in any field of science and engineering research and education supported by NSF. Encouraging and supporting the participation of students, recent Ph.D.'s, junior faculty members, women, and minority and disabled scientists and engineers is an INT priority.

For a summary of INT supported activities, check the Overview of Programs chart on the INT website.

#### II. PROGRAM DESCRIPTION

Proposals from U.S. scientists and engineers for international activities in all fields of science and engineering research, and education supported by NSF are eligible for consideration. Encouraging and supporting the participation of students, recent Ph.D.'s, junior faculty members, and of women, minority and disabled scientists and engineers in international activities is an INT priority. Typically INT supports the incremental costs of adding an international component to collaborative scientific research and associated activities.

NSF does not normally provide support for technical assistance, pilot plant efforts, research requiring security classification, the 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.

**Cooperative approach.** Projects supported by INT are based on direct cooperation between the U.S. and foreign investigators. Joint projects must be designed to achieve substantial mutual scientific benefits. Communications dealing with planning and implementation of cooperative activities supported by NSF should be carried out directly between the U.S. and foreign investigators.

#### A. Eligible Activities

- 1. Cooperative research activities are based on international collaborations, carried out either in the United States or abroad. Such projects initiate international collaboration with foreign counterparts, or promote new types of activities with established international partners. Research projects are jointly designed and implemented by U.S. and foreign researchers or educators. INT awards typically fund 2-3 years of cooperative activity. Pls of long-standing cooperative activities previously supported by INT should contact the appropriate NSF disciplinary research program about continuing support. NSF disciplinary research programs are listed in Appendix A of the Grant Proposal Guide at http://www.nsf.gov/ cgi-bin/ getpub?gpg.
- 2. Joint workshops and seminars are usually small and focused on a specific, well-defined research area. They are designed to identify common research priorities, and to explore possible areas of joint research cooperation. Workshops/seminars typically involve a U.S. co-organizer and an international co-organizer, who collaboratively design and implement the meeting, which can be held at either a U.S. or foreign location. INT provides support for 10-15 U.S. participants, with no more than two from the same U.S. institution. When workshops/seminars are held in the United States, support may also be provided for participants from developing countries or from those countries whose currency is not convertible. Requests for such support should be discussed with the INT program officer prior to proposal submission. Workshops/seminars normally involve a total of 25-35 participants. Foreign participants may come from more than one country. The pool of U.S. participants should include junior researchers, women and members of underrepresented groups, and/or graduate or undergraduate students. Participant diversity will be considered in making award decisions for support of workshops. The results should be broadly disseminated and, wherever possible, displayed in a workshop/seminar Web site.

INT **does not** provide support for U.S. scientists and engineers to participate in international scientific conferences or congresses; nor does it provide support for such meetings. INT will support workshops/seminars that may immediately precede or follow a larger-scale conference when they add an extra dimension to the conference.

- 3. Supplements may be requested by PIs to add an international dimension to an existing NSF research grant or agreement. The PI should consult the INT program manager before submitting a supplement request. Requestors should describe the benefit of the proposed collaboration, the plan of work, the responsibilities of the U.S. and foreign partners, the foreign colleague's area of expertise, and the anticipated contribution from his/her role in the project. The request should include: a copy of the foreign colleague's C.V.; a letter of endorsement from the foreign collaborator's institution; the INT Cover Page, available in Appendix I; and up to three pages of budget explanation. NSF requires that supplemental funding requests be submitted via FastLane.
- 4. Summer Research Experiences for Students provide support to PIs to develop opportunities to introduce small groups of U.S. students to foreign science and engineering in the context of a research experience which will also help initiate personal relationships that will foster the students' capabilities to engage in future international cooperative activities. 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 arrangements for placing each student with appropriate academic and/or industrial laboratories, 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. Organizers are encouraged to consult with an INT program officer before submitting their proposal.
- 5. **Dissertation enhancement projects** support 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 applicants who are U.S. citizens or permanent residents.
- 6. **Planning visits** offer U.S. researchers the opportunity to consult with their prospective foreign partners to **finalize** plans for a cooperative activity eligible for consideration for support by NSF. This mechanism is used sparingly. Evidence of substantive prior communication and preparation is required. Applicants should consult with the appropriate INT program officer before submitting a planning visit proposal.
- 7. The International Research Fellowship Program (IRFP) offers postdoctoral research fellowships at foreign host institutions in all countries. Guidelines for the program are available in NSF 02-149 at http://www.nsf.gov/cgi-bin/getpub?nsf02149. Research fellowship opportunities with Japan are offered through INT nomination of U.S. researchers for five fellowship programs administered by the Japan Society for the Promotion of Science and the Science and Technology Agency of Japan. Descriptions, eligibility criteria, and application procedures for U.S. scientists and engineers interested in research visits to Japan are available at http://www.nsftokyo.org/JSPS02.htm).
- 8. East Asia & Pacific Summer Institutes (EAPSI) in Australia, Japan, Korea, Taiwan and China provide U.S. science and engineering graduate students first-hand experience in a foreign research environment, intensive language training, and an introduction to the science, and science and technology policy infrastructure of the foreign location. For detailed information, see program announcement NSF 03-608 at http://www.nsf.gov/cgi-bin/getpub? nsf03608.
- 9. Pan American Advanced Studies Institutes (PASI) is a jointly supported initiative between the Department of Energy (DOE) and the National Science Foundation (NSF). Pan American Advanced Studies Institutes 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. Detailed information is available at <a href="http://www.nsf.gov/cgi-bin/getpub?nsf03506">http://www.nsf.gov/cgi-bin/getpub?nsf03506</a>.

10. **Other opportunities** may be announced under separate program announcements. See the regional home pages available through the INT home page at <a href="http://www.nsf.gov/sbe/int/start.htm">http://www.nsf.gov/sbe/int/start.htm</a> for current information on new initiatives.

#### **B.** Additional Considerations

- 1. Proposals submitted to INT usually compete in one of five regional groupings shown below. For a summary of program activities supported in each geographic region, click on the region's name to go to its home page, or contact an INT program officer for the appropriate region.
  - 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. Counterpart or parallel proposals. For some countries and projects, U.S. investigators and their foreign partners are required to submit separate proposals to NSF and to a designated agency that serves as NSF's international counterpart in that country. The proposal submitted by the foreign research partner is sometimes referred to as a "counterpart" or "parallel" proposal. In these cases, NSF and the foreign agency review the U.S. and foreign counterpart proposals independently. Joint approval of the cooperative project is sometimes required before NSF can fund the U.S. proposal.
- 3. Responsibilities of principal investigators. Pls 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 will be under a cooperative program between NSF and that foreign country. Pls are also responsible for obtaining research permits and import/export documents, where necessary.

#### III. ELIGIBILITY INFORMATION

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

Proposals must be submitted by a U.S. institution, organization, or professional society, except for proposals for the International Research Fellowship Program (IRFP), fellowship opportunities with Japan, and for East Asia & Pacific Summer Institutes (EAPSI) in Australia, Japan, Korea, Taiwan or China, which accept applications from individuals. Individual applicants for these programs must be U.S. citizens or permanent residents.

## IV. AWARD INFORMATION

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds. Anticipated annual funding for FY2003 and subsequent years is estimated as \$27 million for approximately 600 awards.

#### 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, proposals submitted to the International Research Fellowship Program (IRFP) should follow the guidelines in NSF 02-149, available at http://www.nsf.gov/cgi-bin/getpub?nsf02149.

Proposals submitted to the East Asia & Pacific Summer Institutes (EAPSI) Program for locations in Australia, Japan, Korea, Taiwan, and China should follow the guidelines available in NSF 03-608 at http://www.nsf.gov/cgi-bin/getpub?nsf03608.

Proposals submitted to the Research Fellowships in Japan Program should follow the guidelines available on the web at <a href="http://www.nsftokyo.org/JSPS02.htm">http://www.nsftokyo.org/JSPS02.htm</a>.

In addition to the GPG, INT 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.

- 1. **Cover Sheet** When using Fastlane, from the selection list, choose the NSF publication number number shown at the beginning of this Program Solicitation. 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.
- International Programs 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 INT 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.
- 4. **Project Description and Results from Prior NSF Support.** Project descriptions for INT should address issues of special importance to the proposed activity, as described below.
  - a. Cooperative research activities:
    - 1. Research objectives and methodology.
    - 2. Description of cooperative arrangement/division of labor/complementary expertise.
    - 3. Details on the scientific significance of the host country/counterpart institution.
    - 4. Information about the significant expertise of the foreign partner(s).
    - 5. Information on the history of collaborative efforts with foreign counterpart, if any.
    - 6. Expected scientific/engineering and **mutual** international benefits to be derived from the cooperative arrangement.
  - b. Dissertation enhancement projects:
    - 1. Research objectives and methodology.
    - 2. Description of cooperative arrangement/division of labor/complementary expertise.
    - 3. Details on the scientific significance of the host country/counterpart institution.
    - 4. A description of the role of the foreign institution/country in the graduate student's career objectives and tentative schedule of activities during stay abroad.
    - 5. Expected scientific/engineering and **mutual** international benefits to be derived from the project.
  - c. Joint workshops and seminars:

- 1. Expertise of co-organizers, and division of responsibilities between them.
- 2. Meeting description, including agenda, scientific justification, and expected scientific results and mutual international benefits.
- 3. Proposed U.S. and non-U.S. participants, their brief biographical sketches, and their roles in the workshop/seminar. Indicate all participants to be supported by NSF.
- 4. Description of selection process for all participants who have not yet been selected, including intended efforts to ensure diversity of the participants.
- 5. Plans for dissemination of conclusions/proceeding.
- 6. Plans for anticipated new cooperative activities emerging from the seminar or workshop.

# d. Planning visits:

- 1. Description of proposed research project, and progress to date in planning the joint activity.
- 2. Actions needed to finalize the project plan that cannot be accomplished through communication at a distance.
- 3. Tentative schedule of activities.

### e. Summer Research Experiences for Students:

- 1. Expertise of co-organizers in graduate/undergraduate research, as advisers of students, and their respective roles.
- 2. Significance of host country/region to proposed activity.
- 3. Description of facilities, equipment, and other resources available at proposed site.
- 4. Nature of student activities (student research training, examples of research projects in which students will engage, other activities, including student-faculty and student-student interaction and mentoring, and language and/or area studies).
- 5. Details on the Student Recruitment and Selection Process, including selection criteria and efforts to attract members of underrepresented groups.
- 6. Organizers' plans for preparing students for a research experience abroad (i.e., orientation, research readiness).
- 7. Arrangements for placing students, housing, and other logistics.
- 8. Follow-up project evaluation.
- 5. Biographical sketch of foreign counterpart. In English; maximum of two pages per person.
- 6. **Current and Pending Support of Principal Investigator.** 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 (03-559) 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:**

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 to individuals, International Research Fellowships, and awards made

primarily on behalf of graduate students. Indirect costs are normally applicable to travel (including transportation and living expenses) when travel is incidental to the main purpose of the proposed project. Indirect costs are not applicable to travel when travel is the primary activity of the project and the principal item in the proposed budget. (See Grant Proposal Guide (GPG) at http://www.nsf.gov/cgi-bin/getpub?gpg.

### **Budget Preparation Instructions:**

Before preparing an INT proposal, proposers are strongly encouraged to refer to the following information, which provides special considerations and funding provisions for certain geographical regions or countries.

INT support is primarily for the U.S. researcher's incremental costs incurred as a result of the international cooperation. Except for international research fellowships, support for salaries, stipends, major pieces of equipment, and large amounts for materials and supplies are not provided. Proposals requiring such support should be submitted to the appropriate disciplinary research program. For allowable costs for international research fellowships, refer to the program announcement for the International Research Fellowship Program (NSF 02-149).

1. 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: <a href="http://www.state.gov/m/a/als/prdm">http://www.state.gov/m/a/als/prdm</a>.

For most INT programs, the foreign participant should obtain his/her own funding for participation in the collaborative project. However, when the foreign participant is from a developing country or a country whose currency is not convertible, some support may be provided.

The following special conditions may have an impact on the budget items that may be supported: 1) Existing bilateral cooperative agreement with counterpart agencies in other countries; 2) Activities with countries whose currency is not convertible; and 3) Prevailing economic conditions. Budget information related to each of INT's cooperative activities is described below. In the case of unusual circumstances not covered in this section, applicants should discuss the situation with the appropriate INT program officer.

For all activities, travel must be on a U.S. flag carrier, if such service is available (see para. 761.2 and 761.3 of the Grant Policy Manual at http://www.nsf.gov/cgi-bin/getpub?gpm.

- 2. Cooperative Research: For cooperative research with most countries, support is provided for the 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 pieces of equipment may also be provided. INT encourages the participation of students and junior researchers in collaborative research projects, and will provide support for their international travel and associated living and research costs. For projects with developing countries or with countries whose currency is not convertible, support may sometimes be requested for the travel and living costs for the foreign collaborator to visit the United States.
- 3. **Supplemental funding** may be requested to add an international dimension to an existing NSF grant. Support is negotiated between INT and the cognizant research program director. The supplemental request is sent to the cognizant research program director, with a copy to the INT country program officer.
- 4. Joint seminars and workshops: Support is provided for the airfare (domestic or international, depending on site) for about 10-15 U.S. participants. As justified in the proposal, U.S. co-organizers also may request organizational fees and publication charges. INT does not provide support for individual or group travel to international conferences or congresses, but INT will consider support for a joint workshop/seminar immediately preceding or following a conference or congress.
- 5. Dissertation enhancement projects: In addition to the international travel and associated living costs, support may

also be provided for materials and supplies, survey fees, field assistants, specialized research equipment, and other expenses, when justified as necessary for the conduct of the dissertation research.

- 6. **Planning visits:** INT provides the international airfare, associated living costs, and incidental expenses at the foreign site. Visits typically range from 7-14 days.
- 7. **International Research Fellowships:** These awards support research fellowships at a foreign site in all countries except Japan (see Item 8 below). Allowable costs are provided in NSF 02-149, available on the Web at http://www.nsf.gov/cgi-bin/getpub?nsf02149.
- 8. **Fellowships carried out in Japan:** Support for the participant is fixed according to the duration of the visit. The fellowship support package and allowable dependent support costs available from NSF are described at http://www.nsftokyo.org/JSPS02.htm.
- 9. East Asia & Pacific Summer Institute (EAPSI) Programs in Australia, Japan, Korea, Taiwan, and China: For description of participant support package, see <a href="http://www.nsf.gov/cgi-bin/getpub?nsf03608">http://www.nsf.gov/cgi-bin/getpub?nsf03608</a> on the web.
- 10. Pan American Advanced Studies Institutes (PASI): See http://www.nsf.gov/cgi-bin/getpub?nsf03506.

#### C. Due Dates

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

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

#### **Additional Date Information**

INT has deadlines only where programs are specifically listed. For all other programs, proposals may be submitted any time during the year. Contact regional program officers with questions.

### Second Tuesday in October

International Research Fellowships Program (IRFP): for guidelines see <a href="http://www.nsf.gov/cgi-bin/getpub?nsf02149">http://www.nsf.gov/cgi-bin/getpub?nsf02149</a>.

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Western Europe: All cooperative activities. Planning visits and dissertation enhancements are accepted anytime.

## September 1, yearly

Africa, Near East, and South Asian Region: All activities except planning visits that are accepted at any time.

# November 1, yearly

Americas (including Chile): All activities except planning visits and dissertation enhancement proposals that are accepted at any time. (This is the only deadline for proposals for collaborative activities with Chile.)

#### November 1, yearly

Western Europe: All cooperative activities. Planning visits and dissertation enhancements are accepted anytime.

#### 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: <a href="http://www.fastlane.nsf.gov/a1/newstan.htm">http://www.fastlane.nsf.gov/a1/newstan.htm</a>. 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 onepage 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

Reviewers are asked to evaluate the merit of the proposed international collaboration and the expected mutual benefit to be derived from the contribution of the scientists and engineers in each country.

### **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 and/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 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 <a href="http://www.nsf.gov/cgi-bin/getpub?gpm">http://www.nsf.gov/cgi-bin/getpub?gpm</a>. 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 <a href="http://www.gpo.gov">http://www.gpo.gov</a>.

## 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.

Pls 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. Pls 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:

INT Administrative Manager, telephone: (703)292-8708 or email: intfl@nsf.gov.

Specific questions about proposal development, appropriate funding levels, and supplement opportunities and requirements should be directed to the appropriate geographic region program manager. Contacts are available from the INT home page

For questions related to the use of FastLane, contact:

email: intfl@nsf.gov

Fastlane Helpdesk, email: fastlane@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 <a href="http://www.nsf.gov/cgi-bin/getpub?gp">http://www.nsf.gov/cgi-bin/getpub?gp</a>. 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 <a href="http://www.nsf.gov/home/ebulletin">http://www.nsf.gov/home/ebulletin</a>, 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.

- East Asia & Pacific Summer Institutes for U.S. Graduate Students (EAPSI)
- Pan-American Advanced Studies Institutes Program (PASI)
- International Research Fellowship Program (IRFP)

#### 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

• Location: 4201 Wilson Blvd. Arlington, VA 22230

• For General Information (703) 292-5111

(NSF Information Center):

• 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, Information Dissemination Branch, Division of Administrative Services, National Science Foundation, Arlington, VA 22230.

OMB control number: 3145-0058.

Country #1: \_\_\_\_\_

## 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 #2: Country #3:
Proposal Category:  [ ] Cooperative Research  [ ] Joint Seminar or Workshop  [ ] Planning Visit  [ ] Dissertation Enhancement  [ ] Summer Research Experience for Students
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 Joint Seminar 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. Do not count foreign participants that will be supported by non-NSF funds.	

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