# Graduate Research Fellowship Program (GRFP)

## **Program Solicitation**

NSF 07-576

Replaces Document(s):

NSF 06-592



## **National Science Foundation**

Directorate for Education & Human Resources
Division of Graduate Education

## Application Deadline(s) (due by 5 p.m. submitter's local time):

November 01, 2007

Interdisciplinary Fields of Study

November 02, 2007

Mathematical Sciences; Computer and Information Sciences and Engineering

November 06, 2007

Social Sciences; Psychology; Geosciences

November 07, 2007

Life Sciences

November 08, 2007

Engineering

November 09, 2007

Chemistry; Physics and Astronomy

## **REVISION NOTES**

- 1. Application deadlines have changed.
- 2. Applicants are required to use 12-point, Times New Roman font and may be single spaced.
- 3. The description of eligibility requirements was clarified with respect to previous graduate education, work experience, and change in field of study.

- 4. A statement was introduced to indicate that acceptance of a Graduate Research Fellowship is a commitment to be enrolled in an approved program of graduate study by the following Fall term.
- 5. Guidelines for the use of Reserve status and descriptions of allowable alternate activities were provided.
- 6. A description of cyberinfrastructure resources available to Fellows and recipients of Honorable Mention was provided.
- 7. The descriptions of eligibility and application procedures for Interdisciplinary Fields of Study were reorganized and clarified to aid the applicant in routing their application.

## **SUMMARY OF PROGRAM REQUIREMENTS**

#### **General Information**

## **Program Title:**

Graduate Research Fellowship Program (GRFP)

### Synopsis of Program:

The National Science Foundation aims to ensure the vitality of the human resource base of science, technology, engineering, and mathematics in the United States and to reinforce its diversity by offering approximately 1,100 graduate fellowships in this competition. The Graduate Research Fellowship provides three years of support for graduate study leading to research-based master's or doctoral degrees and is intended for students who are in the early stages of their graduate study. The Graduate Research Fellowship Program (GRFP) invests in graduate education for a cadre of diverse individuals who demonstrate their potential to successfully complete graduate degree programs in disciplines relevant to the mission of the National Science Foundation.

## Cognizant Program Officer(s):

• GRF Operations Center, telephone: 866-673-4737, email: help@nsfgradfellows.org

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

• 47.076 --- Education and Human Resources

### **Award Information**

Anticipated Type of Award: Fellowship Grant

Estimated Number of Awards: 1,100

Anticipated Funding Amount: \$44,550,000 for new fellowships in FY 2008 pending the availability of funds.

### **Eligibility Information**

**Organization Limit:** Fellowship applications must be submitted by the prospective Fellow. Applicants must register with Fastlane (https://www.fastlane.nsf.gov/) prior to submitting an application and must affiliate with an accredited United States university, college, or non-profit academic institution or appropriate international institution of higher education offering advanced degrees in science, technology, engineering, and mathematics prior to activating the Fellowship award.

### **Applicant Eligibility:**

Refer to Section IV. Eligibility Information.

### Limit on Number of Applications per PI: 1

- Applicants are limited to only one application in this competition.

## **Applicant Preparation and Submission Instructions**

### A. Application Preparation Instructions

- . Letters of Intent: Not Applicable
- **Application Instructions:** This solicitation contains information that deviates from 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 by NSF.
- . Indirect Cost (F&A) Limitations:

No indirect costs are allowed.

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

### C. Due Dates

• Application Deadline(s) (due by 5 p.m. submitter's local time):

November 01, 2007

Interdisciplinary Fields of Study

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Mathematical Sciences; Computer and Information Sciences and Engineering

November 06, 2007

Social Sciences; Psychology; Geosciences

November 07, 2007

Life Sciences

November 08, 2007

Engineering

November 09, 2007

Chemistry; Physics and Astronomy

Merit Review Criteria: National Science Board approved criteria apply.

#### Award Administration Information

Award Conditions: Standard NSF award conditions apply

**Reporting Requirements:** See reporting requirements in full text of solicitation.

## **TABLE OF CONTENTS**

## **Summary of Program Requirements**

- I. Introduction
- **II. Program Description**
- **III. Award Information**
- IV. Eligibility Information
- V. Proposal Preparation and Submission Instructions
  - A. Proposal Preparation Instructions
  - B. Budgetary Information
  - C. Due Dates
  - D. FastLane Requirements
- **VI. NSF Proposal Processing and Review Procedures** 
  - A. NSF Merit Review Criteria
  - B. Review and Selection Process
- **VII. Award Administration Information** 
  - A. Notification of the Award
  - **B.** Award Conditions
  - C. Reporting Requirements
- **VIII. Agency Contacts**
- IX. Other Information
- X. Appendix

## I. INTRODUCTION

The purpose of the Graduate Research Fellowship Program (GRFP) is to ensure the vitality of the scientific and technological workforce in the United States and to reinforce its diversity. The program recognizes and supports outstanding graduate students in the relevant science, technology, engineering, and mathematics (STEM) disciplines who are pursuing research-based master's and doctoral degrees. NSF Fellows are expected to become knowledge experts who can contribute significantly to research, teaching, and innovations in science and engineering. These individuals will be crucial to maintaining and advancing the nation's technological infrastructure and national security as well as contributing to the economic well being of society at large.

The Graduate Research Fellowship Program is designed to provide opportunities for advanced education that prepares students for a broad range of disciplinary and cross-disciplinary careers through its strategic investments in intellectual capital. Applicants, therefore, are urged to visit the NSF web page at <a href="http://www.nsf.gov">http://www.nsf.gov</a> for more information and guidance about current and emerging themes for the NSF directorates.

### II. PROGRAM DESCRIPTION

The Graduate Research Fellowship Program awards fellowships for graduate study leading to research-based master's or doctoral degrees in the fields of science, technology, engineering, and mathematics (STEM) relevant to the mission of the National Science Foundation (See NSF-Supported Fields of Study).

NSF Graduate Research Fellowships are intended for individuals in the early stages of their graduate study. All applicants are expected to have adequate preparation to begin graduate level study and research by Summer or Fall of 2008. In most cases, this will be demonstrated by a bachelor's degree earned prior to Fall 2008.

Applicants may pursue graduate study at an institution in the United States or affiliate with a foreign institution. Prospective Fellows are responsible for all logistical arrangements required for affiliation with the foreign institution, including handling living arrangements and securing any necessary passports or visas.

The Graduate Research Fellowship Program supports a comprehensive holistic plan for graduate education and takes into account the individual interests and competencies of the Fellows. Thus, an applicant must provide a detailed profile of his or her relevant educational and research experiences and plans for graduate education in such a way as to demonstrate the potential to become an emerging knowledge expert in STEM disciplines.

Prospective applicants are advised that submission of an application implies a commitment to the pursuit of graduate study in a research-based program in any of the STEM fields supported by NSF (See NSF-Supported Fields of Study). Acceptance of a fellowship award is an explicit acceptance of this commitment and assurance that the Fellow will be duly enrolled in an acceptable graduate degree program by the beginning of the following academic year.

### III. AWARD INFORMATION

The NSF expects to award 1,100 Graduate Research Fellowships under this program solicitation. The affiliated institution receives a \$40,500 award for the costs described below. Fellows Abroad receive direct NSF grant awards up to the same amount.

The Graduate Research Fellowship stipend currently is \$30,000 for a 12-month tenure period, prorated monthly at \$2,500 for shorter periods as approved by NSF.

The cost of education allowance currently is \$10,500 per tenure year. For Fellows Abroad, all tuition and assessed fees will be reimbursed to the Fellow up to a maximum of \$10,500 per tenure year. Refer to the Information for Graduate Fellows document for restrictions on the use of the cost-of-education allowance.

Fellows are allowed an additional one-time \$1,000 International Research Travel Allowance upon submission of an approved travel request. The planned travel must extend for a continuous 90-day period.

Fellows and applicants receiving Honorable Mention are provided enhanced access to cyberinfrastructure resources, including supercomputing time, through the TeraGrid. Please refer to <a href="http://www.teragrid.org">http://www.teragrid.org</a> for more information on cyberinfrastructure resources.

All awards will be for a maximum of three years usable over a five-year period. The anticipated award date is late March 2008.

### **Honorable Mention**

The NSF accords Honorable Mention to meritorious applicants who do not receive fellowship awards. This is considered a significant academic achievement nationwide and provides access to cyberinfrastructure resources through the TeraGrid for a period of one year following notification of the Honorable Mention.

**Organization Limit:** Fellowship applications must be submitted by the prospective Fellow. Applicants must register with Fastlane (https://www.fastlane.nsf.gov/) prior to submitting an application and must affiliate with an accredited United States university, college, or non-profit academic institution or appropriate international institution of higher education offering advanced degrees in science, technology, engineering, and mathematics prior to activating the Fellowship award.

## Applicant Eligibility:

Refer to Section IV. Eligibility Information.

#### Limit on Number of Applications per PI: 1

- Applicants are limited to only one application in this competition.

## Additional Eligibility Info:

The three eligibility requirements for the Graduate Research Fellowship Program -- citizenship, degree requirements, and field of study -- are described below. Applicants are advised to read the entire program solicitation carefully to be sure that the requirements are interpreted properly. Applicants must exercise judgment in assessing eligibility.

Eligibility will be determined only by review of a complete, submitted application.

### Citizenship

Applicants must be United States citizens or nationals, or permanent resident aliens of the United States.

The term "national" designates a native resident of a commonwealth or territory of the United States, such as American Samoa, Guam, Puerto Rico, U.S. Virgin Islands, or the Northern Mariana Islands. It does not refer to a citizen of another country who has applied for U.S. citizenship.

## **Degree Requirements**

Fellowships are intended for individuals in the early stages of their graduate study. Below are general guidelines for determining eligibility according to the degree requirements criterion.

- Applicants are expected to have adequate preparation to begin graduate study and research by summer or fall 2008. In most cases, this will be demonstrated by receipt of a bachelor's degree earned prior to Fall 2008.
- Individuals are typically eligible to apply during the senior year of college, after graduating from college but prior to entering graduate school, during the first year of graduate school, or prior to completing the first term of the second year of graduate school.
- Applicants must have completed no more than twelve months of full-time graduate study or its
  equivalent by the August 31st prior to the program submission deadline.
- All post-baccalaureate, graduate-level study in an NSF-supported field counts toward the allowed twelve months of completed graduate study. This includes all Masters's and Ph.D. programs in these disciplines.
- Applicants who have completed part-time graduate study must have completed no more than twenty-four (24) semester hours or its equivalent by August 31st prior to the program submission deadline.
- Research-oriented work experience in an academic or similar environment that is closely related to
  the current or proposed program of graduate study may be considered as equivalent to graduate
  coursework for eligibility purposes. A combination of relevant work experience and coursework may
  render an applicant ineligible.
- Applicants in joint BS/MS programs are typically eligible to apply prior to the completion of any further graduate study.
  - o In four-year joint programs, applicants may apply in the fourth year and after the completion of the program. Completion of any further graduate study outside the joint program will disqualify an applicant.
  - o In five-year joint programs, applicants may apply in the fourth and fifth years of the program

and after the completion of the program. Completion of any further graduate study outside the joint program will disqualify an applicant.

- In some cases, applicants may be considered eligible based on extenuating circumstances, such as
  a significant change of field (including change from a professional to a research-oriented graduate
  program), interruption in graduate study for financial reasons, or career interruption due to family or
  medical reasons. The interruption must be for a period of more than two years prior to November
  2007.
- Categories of applicants that are always ineligible:
  - Those who earned a Ph.D. in science, mathematics, or engineering or any medical degree, such as an M.D., D.D.S. or D.V.M. after October 1, 2002.
  - Those who have already received and held tenure as an NSF Graduate Research Fellow (previously known as an NSF Pre-Doctoral Fellow).

### Field of Study

Fellowships are awarded for graduate study leading to research-based master's or doctoral degrees in the fields of science, technology, engineering, and mathematics supported by the National Science Foundation (See NSF-Supported Fields of Study). The guidelines below should be used to assess eligibility according to the field of study criterion.

- Applications for interdisciplinary programs of study and research are eligible for the GRFP, provided the applicant meets all other eligibility guidelines and requirements.
- Research in bioengineering with diagnosis or treatment-related goals may be eligible for support if it
  applies engineering principles to problems in biology and medicine while advancing engineering
  knowledge. Bioengineering research to aid persons with disabilities may also be eligible.
  Applications emphasizing biology should be submitted under life sciences on November 7, 2007
  while those emphasizing engineering should be submitted under engineering on November 8, 2007.
- Research in a policy science is eligible only if applicants are pursuing research oriented master's or Ph.D. degrees.
- Categories of study that are always ineligible:
  - Clinical, counseling, business, or management fields, social work, education (except in science education Ph.D.), or history (except in history of science).
  - Practice-oriented professional degree programs, joint science-professional degree programs (MD/PhD and JD/PhD), and medical, dental, law, or public health programs.
  - Medical sciences or 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, animal models of such conditions, or the development or testing of drugs or other procedures for their treatment.

The Graduate Research Fellowship Operations Center is responsible for processing applications and responding to questions about the program. For questions concerning these guidelines, contact the Graduate Research Fellowship Operations Center, 866-673-4737, international 202-331-3542, or help@nsfgradfellows.org. However, eligibility will be determined only on the basis of a completed submitted application.

### Women in Engineering and Computer and Information Science Awards

The Women in Engineering and Computer and Information Science awards are for women who intend to pursue graduate research degrees in Engineering or Computer and Information Science and Engineering. Additional funding for these awards is provided by the Directorate for Computer and Information Science and the Directorate for Engineering. Eligibility and review criteria are the same as for applicants in other fields.

## V. APPLICATION PREPARATION AND SUBMISSION INSTRUCTIONS

## A. Application Preparation Instructions

Fellowship applications must be submitted electronically using the NSF FastLane Graduate Research Fellowship Program Application Module at <a href="http://www.fastlane.nsf.gov/grfp/">http://www.fastlane.nsf.gov/grfp/</a> according to the field of study deadline. Thus, applicants must first register as a FastLane user at that web site. The official transcript(s) is (are) due by the relevant field of study deadline and must be submitted to the GRF Operations Center at the address shown in this section. See the Applicant User Guide for

instructions on completing and submitting an application.

The **FastLane Application Module** includes the following information: Personal Profile, Education and Work Experience, Planned Graduate Program, Personal Statement, Previous Research Experience, Proposed Plan of Research, and References. Do not send other extraneous information or materials such as CDs, manuscripts, resumes, medical reports, or news clippings. These items will not be reviewed with your application. Images may be included but will be produced only in black and white.

Applicants must follow the instructions in the user guide and applicant module for completing each section of the application and adhere to the 12-point, Times New Roman font, 1" margin, and page limitation for all essays. The essays must be written using the standard 8.5" x 11" page size, and may be single spaced. Failure to comply with these requirements could eliminate the application from consideration by review panels. Applicants are advised to submit applications early to avoid possible FastLane system delays on the deadline dates.

Supplemental Application Materials are described below.

. Official Academic Transcripts (Must be received by field of study deadline)

Academic transcripts are required for all institutions listed in the applicant module, excluding Fall 2007. Required transcripts include academic transcripts from the baccalaureate institution and transcripts for all completed graduate work. Transcripts must be received by the field of study application deadline and submitted to the GRF Operations Center in hard copy via postal mail, express service, or courier *to*:

GRF Operations Center Suite T-50, 1818 N Street NW Washington, DC 20036 Telephone: 866-673-4737

· Graduate Record Examinations (GRE) Test Scores (Optional -- Due November 30, 2007)

It is recommended that applicants have both the GRE General and Subject Test scores reported. Only GRE scores from tests taken between October 1, 2002 and November 30, 2007 submitted by ETS will be accepted for the 2008 NSF Graduate Research Fellowship competition. GRE scores may be reported only by using the application module. Applicants should NOT submit scores themselves directly.

. Three Reference Letters (Due December 1, 2007)

Applicants are required to submit three reference letters. Reference writers should use letterhead, if possible, and include the following information: Name and Title of reference writer, Department, and Institution or Organization. The reference letter should provide details explaining the nature of the relationship to the applicant, comments on the applicant's potential and prior research experiences, statements about the applicant's academic potential and prior research experiences, statements about the applicant's proposed research, and any other information to enable review panels to evaluate the application according to the NSF Merit Review Criteria of Intellectual Merit and Broader Impacts.

### **Graduate Record Examination Registration**

NSF will pay Subject Test registration fees for applicants who register for the November 3, 2007 administration under two conditions: (1) the NSF Fellowship application is the primary purpose, and (2) the GRE registration form for the November test is received at ETS no later than September 28, 2007.

The following condition is imposed on the reporting of the November 3, 2007 GRE Subject Test scores when NSF pays the test fee. Prior to May 1, 2008 these scores will be reported only for the NSF Graduate Research Fellowship Program, to the fellowship applicant, and to the applicant's undergraduate institution.

Mail the Request for Payment of GRE Subject Test Fee form along with the GRE Subject Test registration form to:

ETS - GRE Box 382013 Pittsburgh, PA 15251-8013 No online registration is available.

### **Application Completion Status**

The FastLane GRFP Application module will display the completion status of the fellowship application. The status function will indicate whether the application and the supplemental information, such as transcripts, reference letters, and GRE scores have been received. Applicants are strongly encouraged to make use of this feature and the Manage Reference feature to ensure all application materials have been received. Applicants must use the FastLane user ID and password to access this information.

### Interdisciplinary Applications

NSF welcomes applications for interdisciplinary programs of study and research. To accommodate the special review needs of interdisciplinary applications, applicants must indicate the relative effort for each field of study represented in their application. Truly interdisciplinary applications in which no one field of study predominates should be classified as "Interdisciplinary Fields of Study" and submitted by the Interdisciplinary Fields of Study deadline of November 1, 2007. For applications in which one discipline predominates, applicants are instructed to identify that as the primary field of study in the FastLane Application Module along with all other fields of study represented in their application, and to submit their application by the deadline for the primary field of study. Proper response to these instructions will help insure that applications are evaluated by the most appropriate panel of reviewers.

## **B. Budgetary Information**

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

#### Indirect Cost (F&A) Limitations:

No indirect costs are allowed.

### Other Budgetary Limitations:

NSF awards \$40,500 each year to the affiliated institution to cover the GRF stipend and cost of education allowance for each Graduate Research Fellow on Tenure at that institution. Fellows Abroad receive direct grant awards for up to the same amount.

The Graduate Research Fellowship Program fellowship stipend currently is \$30,000 for a 12-month tenure period, prorated monthly at \$2,500 for shorter periods as approved by NSF.

The cost-of-education allowance currently is \$10,500 per tenure year per fellow. For Fellows Abroad, all tuition and assessed fees are reimbursed to the Fellow up to a maximum of \$10,500 per tenure year.

Fellows are eligible for a one-time \$1,000 International Research Travel Allowance.

#### C. Due Dates

• Application Deadline(s) (due by 5 p.m. submitter's local time):

November 01, 2007

Interdisciplinary Fields of Study

November 02, 2007

Mathematical Sciences; Computer and Information Sciences and Engineering

November 06, 2007

Social Sciences; Psychology; Geosciences

November 07, 2007

Life Sciences

November 08, 2007

Engineering

November 09, 2007

Chemistry; Physics and Astronomy

## D. Fastlane Requirements

Applicants are required to prepare and submit all applications for this program solicitation through the FastLane system. Detailed instructions for application 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 solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

### VI. APPLICATION REVIEW INFORMATION

The Graduate Research Fellowship Program (GRFP) is designed to provide opportunities for pre-doctoral education that prepares students for a broad range of disciplinary and cross-disciplinary careers through its investment in intellectual capital. Applicants are expected to propose a holistic plan for graduate education that demonstrates the potential to successfully complete a research-based graduate degree and the potential to become an emerging knowledge expert in science, technology, engineering, and mathematics.

### A. NSF Application Review Process

Applications will be reviewed by panels of disciplinary and interdisciplinary scientists, mathematicians, and engineers and other professional experts in graduate education. Applications will be assigned to panels based on the applicant s chosen field (s) of study and the discipline(s) represented. Thus, applicants are advised to select the fields of study in the FastLane applicant module that are most closely aligned to the proposed graduate program of study and research plan. Applications to interdisciplinary fields of study are reviewed by both disciplinary and interdisciplinary panelists based on the disciplines indicated by the applicant and review of the application by the GRFP staff.

Each application, therefore, will be reviewed independently on the basis of merit using all available information in the completed application. In considering applications, reviewers will be instructed to address the two Merit Review Criteria as approved by the National Science Board on March 28, 1997 INTELLECTUAL MERIT and BROADER IMPACTS. Applicants, therefore, must address each criterion in their written statements to provide reviewers with the information necessary to respond fully to both. The following guidance is provided to interpret these requirements in the context of the Graduate Research Fellowship Program.

Intellectual Merit

The intellectual merit criterion includes demonstrated intellectual ability and other accepted requisites for scholarly scientific study, such as the ability (1) to plan and conduct research; (2) to work as a member of a team as well as independently; and (3) to interpret and communicate research findings. Panelists will consider: the strength of the academic record, the proposed plan of research, the description of previous research experience, references, Graduate Record Examinations (GRE) General and Subject Tests scores, and the appropriateness of the choice of institution relative to the proposed plan for graduate education and research.

#### **Broader Impacts**

The broader impacts criterion includes contributions that (1) effectively integrate research and education at all levels, infuse learning with the excitement of discovery, and assure that the findings and methods of research are communicated in a broad context and to a large audience; (2) encourage diversity, broaden opportunities, and enable the participation of all citizenswomen and men, underrepresented minorities, and persons with disabilities-in science and research; (3) enhance scientific and technical understanding; and (4) benefit society. Applicants may provide characteristics of their background, including personal, professional, and educational experiences, to indicate their potential to fulfill the broader impacts criterion.

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

Applications submitted in response to this program solicitation will be reviewed by Panel Review.

Please see Section A. above for a description of the review process.

### VII. AWARD ADMINISTRATION INFORMATION

## A. Notification of the Award

Notification of the fellowship award is made to the applicant by the Division of Graduate Education. Applicants whose applications are not selected for fellowship award will be advised as promptly as possible.

## **B. Award Conditions**

An NSF Fellowship award consists of the award letter that includes the applicable terms and conditions and fellowship management instructions. All Fellowship awards are made subject to the provisions (and any subsequent amendments) contained in the document Information for Graduate Research Fellows.

NSF Graduate Research Fellowship Program applicants will be notified in late March 2008 of their selection. The applicant must accept or decline the Fellowship within 30 days of notification by logging into the Graduate Research Fellowship Program link at: <a href="http://www.fastlane.nsf.gov/grfp/">http://www.fastlane.nsf.gov/grfp/</a> with the applicant User ID and password. Failure to comply with the deadline may result in revocation of the fellowship offer.

Other Opportunities for Fellowship Awardees and Honorable Mention Recipients

Fellows and Honorable Mention recipients may request cyberinfrastructure resources through the TeraGrid. Details on resources available are described at: <a href="http://www.teragrid.org">http://www.teragrid.org</a>. Requests must be for cyberinfrastructure resources in support of research undertaken toward completion of the graduate program of study.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (students and faculty) to work on NSF-supported projects. Fellowship awardees and Honorable Mention recipients with disabilities may apply for assistance by contacting grfp@nsf.gov.

Research Involving Human Subjects

Projects involving research with human subjects must ensure that subjects are protected from research risks in conformance with the relevant federal policy known as the Common Rule (Federal Policy for the Protection of Human Subjects, 45 CFR 690). All projects involving human subjects must either (1) have approval from the organization s Institutional Review Board (IRB) before fellowship award or (2) must affirm that the IRB or an appropriate knowledgeable authority previously designated by the organization (not the Applicant) has declared the research exempt from IRB review, in accordance with the applicable subsection, as established in section 101(b) of the Common Rule. Applicants and Fellows are required to comply with this policy and adhere to the organization s protocol for managing research involving human subjects.

Proposals Involving Vertebrate Animals

Any project proposing use of vertebrate animals for research or education shall comply with the Animal Welfare Act [7 U.S.C.

2131 et seq.] and the regulations promulgated thereunder by the Secretary of Agriculture [9 CFR 1.1-4.11] pertaining to the humane care, handling, and treatment of vertebrate animals held or used for research, teaching or other activities supported by Federal awards. In accordance with these requirements, proposed projects involving use of any vertebrate animal for research or education must be approved by the submitting organization's Institutional Animal Care and Use Committee (IACUC) before an award can be made. For this approval to be accepted by NSF, the organization must have a current Public Health Service (PHS) Approved Assurance.

Projects involving the care or use of vertebrate animals at a foreign organization or foreign field site also require approval of research protocols by the U.S. grantee s IACUC. If the project is to be funded through an award to a foreign organization or through an individual fellowship award that will support activities at a foreign organization, NSF will require a statement of compliance that the activities will be conducted in accordance with all applicable laws in the foreign country and that the International Guiding Principles for Biomedical Research Involving Animals (see <a href="http://www.cioms.ch/">http://www.cioms.ch/</a>) will be followed.

### Legal Rights to Intellectual Property

The National Science Foundation claims no rights to any inventions or writings that might result from its fellowship or traineeship grants. However, fellows and trainees should be aware that the NSF, another Federal agency, or some private party may acquire such rights through other support for particular research. Also, fellows and trainees should note their obligation to include an Acknowledgment and Disclaimer in any publication.

## C. Reporting Requirements

### Annual Activity Report

Fellows are required to submit an Activity Report annually, regardless to tenure status, using NSF s FastLane electronic fellowship management and reporting system. The system permits electronic submission and updating of activity reports, including information on research accomplishments and findings, presentations, publications, teaching and research assistantships, awards and recognitions, and other scholarly accomplishments.

#### Annual Tenure Declaration

Fellows must declare their intent to affiliate with an institution and to utilize the fellowship for the following year annually using the NSF FastLane fellowship management and reporting system. Failure to declare intent by the deadline established violates the terms and conditions for NSF fellowship awards.

## Fellows Abroad

Starting Certificate: Fellows Abroad must submit the Fellowship Starting Certificate to initiate stipend payments and annually thereafter. The Starting Certificate must indicate the contact information for the Science Advisor at the affiliated institution.

ACH Vendor/Miscellaneous Payment Enrollment Form: Fellows Abroad must submit the ACH Vendor/Miscellaneous Payment Enrollment Form (SF 3881) to the Division of Financial Management at NSF in order for the U.S. Treasury Department to transmit payment data electronically to the Fellow s U.S. bank account.

## Program Evaluation

The Division of Graduate Education (DGE) may conduct an on-going evaluation to determine how effectively the GRF program is achieving its goal to respond to the nation s need for a globally prepared diverse science and engineering workforce. Additionally, it is highly desirable to have a structured means of tracking Fellows beyond graduation to gauge the extent to which they follow a career path consistent with the intent of the program and to assess the impact the NSF fellowship has had on their graduate education experience. Accordingly, Fellows may be contacted during and after the completion of this award for updates on various aspects of their employment history, professional activities and accomplishments, and other information helpful in evaluating the impact of the program. Fellows and affiliated institutions should be prepared to cooperate in program-level evaluations conducted by the NSF and/or contracted evaluators.

### **VIII. AGENCY CONTACTS**

General inquiries regarding this program should be made to:

• GRF Operations Center, telephone: 866-673-4737, email: help@nsfgradfellows.org

For questions related to the use of FastLane, contact:

• FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

The Graduate Research Fellowship Operations Center is responsible for processing applications and responding to requests for information. General inquiries regarding the Graduate Research Fellowship Program should be made to:

• Graduate Research Fellowship Operations Center, telephone: 866-NSF-GRFP, 866-673-4737 (toll-free from the US and Canada) or 202-331-3542 (international). email: help@nsfgradfellows.org

## IX. OTHER INFORMATION

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

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

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 MyNSF, formerly the Custom News Service, at (<a href="http://www.nsf.gov/home/cns/start.htm">http://www.nsf.gov/home/cns/start.htm</a>) to be notified of new funding opportunities that become available.

International Research Fellowship Program (NSF 06-582)

Alliances for Broadening Participation in STEM (ABEP) (NSF 07-566)

Discovery Corps Fellowships (NSF 07-516)

CEDAR, GEM, and SHINE Postdoctoral Research (NSF 06-584)

Integrative Graduate Education and Research Traineeship (IGERT) (NSF 07-540)

Research Experience for Undergraduates (NSF 07-569)

Minority Postdoctoral Research Fellowships and Supporting Activities (NSF 06-586)

Graduate Teaching Fellows in K-12 Education (GK-12) (NSF 07-555)

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

## X. APPENDIX

### NATIONAL SCIENCE FOUNDATION GRADUATE RESEARCH FELLOWSHIPS

## **NSF-Supported Fields of Study**

## CHEMISTRY

5230 Analytical

5250 Bio-inorganic

5240 Bio-organic

5260 Biophysical

9994 Environmental

5290 Inorganic

5330 Organic

5350 Physical

5331 Polymer

5370 Theoretical

0001 Chemistry, other (specify)

## **COMPUTER AND INFORMATION SCIENCE AND ENGINEERING (CISE)**

0006 Artificial Intelligence (including Robotics, Computer Vision, and Human Language Processing)

7210 Computer Science - Languages and Systems

0007 Computer Science - Theoretical Foundations

7270 Computer Systems Design (including Signal Processing)

0008 Databases, Information Retrieval, and Web Search

0009 Graphics and Visualization

7260 Human Computer Interaction

7250 Information Technology and Organizations

7290 Networks and Communications

0010 Scientific Computing and Informatics

7220 Software Engineering

0012 Computer Architecture and Grids

0020 Information Security and Assurance

0001 CISE, other (specify)

0011 Operating Systems and Middleware

### **ENGINEERING**

- 6210 Aeronautical and Aerospace
- 6240 Agricultural
- 6250 Bioengineering and Biomedical
- 6330 Chemical Engineering
- 6350 Civil Engineering
- 6388 Computer Engineering
- 6390 Electrical and Electronic
- 6741 Energy
- 6470 Engineering Mechanics
- 6532 Engineering Science
- 9996 Environmental
- 6580 Industrial Engineering
- 6476 Materials
- 6620 Mechanical
- 6660 Metallurgical
- 6740 Nuclear
- 6245 Ocean
- 6716 Petroleum
- 6480 Polymer
- 6585 Systems Engineering
- 0001 Engineering, other (specify)

### **GEOSCIENCES**

- 5710 Aeronomy
- 5720 Atmospheric Chemistry
- 5750 Chemical Oceanography
- 5770 Climate Dynamics
- 5740 Geochemistry
- 5780 Geology
- 5800 Geophysics
- 5810 Hydrologic Sciences
- 5820 Large-scale Dynamics Meteorology
- 5830 Magnetospheric Physics
- 5840 Marine Geology and Geophysics
- 5850 Mesoscale Dynamic Meteorology
- 5870 Paleoclimate
- 5860 Paleontology
- 5880 Physical Meteorology
- 7799 Physical Oceanography
- 5890 Solar Terrestrial
- 0001 Geosciences, other (specify)

## LIFE SCIENCES

- 0399 Agriculture
- 0140 Agronomy
- 4510 Anatomy
- 4530 Animal Behavior
- 4531 Animal Science
- 0999 Biochemistry
- 1870 Biological Oceanography
- 1299 Biophysics
- 1599 Botany (including Plant Physiology)
- 1820 Cell Biology
- 1860 Computational Biology
- 1840 Developmental Biology
- 1830 Ecology
- 4570 Entomology
- 9992 Environmental Sciences
- 1850 Evolutionary Biology
- 4590 Fish and Wildlife
- 0250 Forestry
- 2499 Genetics

0300 Horticulture

3293 Immunology

1874 Marine Biology

3299 Microbiology

1880 Molecular Biology

1829 Neurosciences

1890 Nutrition

2970 Pharmacology

3899 Physiology

1545 Plant Pathology

4540 Soil Science

1822 Structural Biology

3290 Virology

4699 Zoology

0001 Life Sciences, other (specify)

### **MATHEMATICAL SCIENCES**

7010 Algebra or Number Theory

7030 Analysis

7050 Applications of Mathematics (including Biometrics and Biostatistics)

7110 Geometry

7130 Logic or Foundations of Mathematics

7140 Operations Research

7150 Probability and Statistics

7170 Topology

0001 Mathematics, other (specify)

### PHYSICS AND ASTRONOMY

4999 Astronomy

4930 Astrophysics

8040 Atomic and Molecular

8050 Condensed Matter Physics

8160 Nuclear

8180 Optics

8110 Particle Physics

8200 Physics of Fluids

8210 Plasma

8220 Solid State

8260 Theoretical Physics

0001 Physics, other (specify)

## **PSYCHOLOGY**

4125 Cognitive

4120 Cognitive Neuroscience

0006 Computational Psychology

4130 Developmental

4150 Experimental or Comparative

4189 Industrial/Organizational

4155 Neuropsychology

4165 Perception and Psychophysics

4170 Personality and Individual Differences

0007 Psycholinguistics

4158 Physiological

4162 Quantitative

4190 Social

0001 Psychology, other (specify)

## **SOCIAL SCIENCES**

0695 Cultural Anthropology

0694 Linguistic Anthropology

0696 Medical Anthropology

0697 Physical Anthropology

0610 Archaeology

0011 Cleometric History

0010 Communications

0006 Decision Making

9818 Demography

0009 Econometrics

0013 Economics (except Business Administration)

8799 Geography

9099 History of Science

9499 International Relations

0008 Law and Social Science

9299 Linguistics

9098 Philosophy of Science

9399 Political Science

9799 Public Policy

0007 Risk Analysis

0012 Science Policy

0014 Sociology (except Social Work)

9699 Urban and Regional Planning

0001 Social Sciences, other (specify)

0002 Anthropology, other (specify)

- Warning: Individuals pursuing research in a policy science are eligible for funding only if they are pursuing research oriented Master's or Ph.D. degrees.
- Warning: Research with disease-related goals is not eligible for support by NSF. Applicants in this field will be judged ineligible if their Proposed Plan of Research has disease-related goals and/or is insufficiently focused on basic research questions.
- Warning: Clinical and counseling psychology are generally not supported in this program; applicants in this field will
  be judged ineligible if their Proposed Plan of Research focuses on mental disease, abnormality or malfunction.

Contact NSF

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