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Postdoctoral Research Fellowships in Biology (PRFB)

PROGRAM SOLICITATION
NSF 12-497

REPLACES DOCUMENT(S):
NSF 11-499

National Science Foundation

Directorate for Biological Sciences

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

October 30, 2012

October 08, 2013

IMPORTANT INFORMATION AND REVISION NOTES

Revision Summary

Deadline for the FY 2013 Competition has been changed.

Award size is increased to align with other fellowship programs at NSF.

This revised Solicitation contains:

Important changes regarding PI eligibility for all Competitive Areas.

Announcement of a new competitive area, International Postdoctoral Research Fellowships in Biology.

A requirement for additional information in the project description, in the form of a project timetable and future career plans for proposals submitted to all Competitive Areas.

Please review this information carefully prior to preparation and submission of a proposal.

Important Reminders

A revised version of the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG), NSF 11-1, was issued on October 1, 2010 and is effective for proposals submitted, or due, on or after January 18, 2011. Please be advised that the guidelines contained in NSF 11-1 apply to proposals submitted in response to this funding opportunity.

Cost Sharing: The PAPPG has been revised to implement the National Science Board's recommendations regarding cost sharing. Inclusion of voluntary committed cost sharing is prohibited. In order to assess the scope of the project, all organizational resources necessary for the project must be described in the Facilities, Equipment and Other Resources section of the proposal. The description should be narrative in nature and must not include any quantifiable financial information. Mandatory cost sharing will only be required when explicitly authorized by the NSF Director. See the PAPP Guide Part I: *Grant Proposal Guide (GPG)* Chapter II.C.2.g(xi) for further information about the implementation of these recommendations.

Data Management Plan: The PAPPG contains a clarification of NSF's long standing data policy. All proposals must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans. FastLane will not permit submission of a proposal that is missing a Data Management Plan. The Data Management Plan will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate. Links to data management requirements and plans relevant to specific Directorates, Offices, Divisions, Programs, or other NSF units are available on the NSF website at: http://www.nsf.gov/bfa/dias/policy/dmp.jsp. See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Postdoctoral Research Fellowships in Biology
(PRFB)

Synopsis of Program:

The Directorate for Biological Sciences (BIO) awards Postdoctoral Research Fellowships in Biology to recent

recipients of the doctoral degree for research and training in *selected* areas supported by BIO and with special goals for human resource development in biology. The fellowships encourage independence at an early stage of the research career to permit Fellows to pursue their research and training goals in the most appropriate research locations regardless of the availability of funding for the Fellows at that site. For FY 2013, these BIO programs are ***(1) Broadening Participation in Biology; (2) Intersections of Biology and Mathematical and Physical Sciences and Engineering; (3) National Plant Genome Initiative Postdoctoral Research Fellowships; and (4) International Postdoctoral Research Fellowships in Biology.*** These areas change periodically as new scientific and infrastructure opportunities present themselves. For this reason, this solicitation will be changed as necessary to reflect the areas being funded.

The fellowships are also designed to provide active mentoring of the Fellows by the sponsoring scientists who will benefit from having these talented young scientists in their research groups. The research and training plan of each fellowship must address important scientific questions within the scope of the BIO Directorate and the specific guidelines in this fellowship program solicitation. International and teaching options are also offered. Because the fellowships are offered only to postdoctoral scientists early in their careers, NSF encourages doctoral advisors to discuss the availability of these postdoctoral fellowships in biology with their graduate students early in their doctoral programs. Fellowships are awards to individuals, not institutions, and are administered by the Fellows.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Carter Kimsey, Competitive Area 4, telephone: (703) 292-7170, email: bio-dbi-prfb@nsf.gov
- Diane J. Okamuro, Competitive Area 3, telephone: (703) 292-4400, email: dbipgr@nsf.gov

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

- 47.074 --- Biological Sciences

Award Information

Anticipated Type of Award: Fellowship

Estimated Number of Awards: 15 fellowships per year in each competitive area contingent upon availability of funds.

Anticipated Funding Amount: $10,000,000

Approximately $4 million each year for Competitive Areas 1 and 2; up to $4 million each year from the Plant Genome Program in Integrative Organismal Systems (IOS) for NPGI Fellowships in FY 2013 and FY 2014; and up to $2 million from the Office of International Science and Engineering (OISE) for International Postdoctoral Research Fellowships in Biology for FY 2013, pending availability of funds.

Eligibility Information

Organization Limit:

Proposals may only be submitted by the following:

- Only individuals may apply. NSF postdoctoral fellowships are awards to individuals, and applications are submitted directly by applicants to NSF. However, applications must include sponsoring scientists' statements and the applicants must affiliate with institutions (*e.g.*, colleges and universities, and privately-sponsored nonprofit institutes and museums, government agencies and laboratories, and, under special conditions, for-profit organizations) anywhere in the world.

  Applications in all Competitive Areas with international host institution affiliations are eligible for support. Funding from the Office of International Science and Engineering (OISE) may be available for awards with international host institutions. Additional information and requirements for long-term international research collaborations are available at NSF's OISE website (http://www.nsf.gov/od/oise/iprffapp.jsp).

PI Limit:

Applicants must

- be U.S. citizens (or nationals) or permanent residents of the United States (*i.e.*, have a "green card") at the proposal deadline;
- earn or plan to earn the doctoral degree in a scientific, mathematical, or engineering field prior to the requested start date of the fellowship and have not accepted an academic appointment;
- either currently be a graduate student or, at the proposal deadline date, have served in a position requiring the doctoral degree for no more than 12 full time months since earning the degree;
- present a research and training plan that falls within the purview of NSF's Biological Sciences (BIO) Directorate;
- select sponsoring scientists in departments and/or institutions different from the doctoral degree and, for Competitive Areas 1, 2 and 4, different from the current position as well. For Competitive Area 3, applicants planning to stay in their current positions must articulate how the new training planned under this fellowship would meet the goals of the National Plant Genome Initiative.
- not have received Federal funding of more than $20,000 as PI or co-PI (except graduate fellowships and doctoral dissertation improvement grants);
- not have submitted the same project to another NSF program; AND
- not be a named participant on any other proposal submitted to NSF, including regular research proposals, concurrent with the fellowship application, regardless of who is the named principal investigator.

If you fail to meet any eligibility criterion, your application will be returned without review.

Limit on Number of Proposals per Organization:

Only individuals may apply. There is no limit on the number of applicants that an institution may host.

Limit on Number of Proposals per PI or Co-PI: 1

Applicants may submit only one fellowship application to BIO per fiscal year and may apply in no more than 2 successive years for all Postdoctoral Fellowships in Biology.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- Letters of Intent: Not Applicable
- Preliminary Proposal Submission: Not Applicable
- Full Proposal Preparation Instructions: This solicitation contains information that deviates from the standard NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

- Cost Sharing Requirements: Inclusion of voluntary committed cost sharing is prohibited.
- Indirect Cost (F&A) Limitations: Not Applicable
- Other Budgetary Limitations: Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

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

  October 30, 2012

  October 08, 2013

Proposal Review Information Criteria

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

Award Administration Information

Award Conditions: Additional award conditions apply. Please see the full text of this solicitation for further information.

Reporting Requirements: Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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IX. Other Information

I. INTRODUCTION

BIO offers Postdoctoral Research Fellowships in Biology to provide opportunities for scientists early in their careers who are ready to assume independence in their research efforts and to obtain training beyond their graduate education in preparation for scientific careers, to gain research experience under the sponsorship of established scientists, and to broaden their scientific horizons. Fellowships are further designed to assist new scientists to direct their research efforts beyond traditional disciplinary lines and to avail themselves of unique research resources, sites, and facilities, including international locations. Fellows must affiliate with appropriate research institutions and are expected to devote themselves full time to the fellowship activities for the duration of the fellowship.

Currently BIO offers Postdoctoral Research Fellowships in Biology in four areas:

Competitive Area 1. Broadening Participation in Biology.

These fellowships have been offered since FY 1990 as the NSF Minority Postdoctoral Research Fellowships to increase the participation of underrepresented groups in biology. The program supports a wide range of biological research and training across the full range of BIO's research programs.

Competitive Area 2. Intersections of Biology and Mathematical and Physical Sciences and Engineering.

Quantitative disciplines such as the mathematical and physical sciences and engineering do not simply provide tools for studies in the biological sciences but present new opportunities to play a more critical role in advancing biological research. As research in biology becomes more interdisciplinary and requires more sophisticated modeling and experimental techniques, new connections need to be made between biology and the mathematical and physical sciences, statistics, and engineering. To further advances in biology, these fellowships will support the most innovative research and training where biology meets the mathematical or physical sciences or engineering. To achieve this goal, the fellowships require two mentors for the Fellow, one from biology and one from mathematics, statistics, physical sciences, or engineering. Sponsors may be at the same or different institutions but must provide in the proposed research and training plan mentoring and research guidance from their different fields.

Competitive Area 3. National Plant Genome Initiative (NPGI) Postdoctoral Research Fellowships

The NPGI fellowships will be co-sponsored by NSF, US Department of Energy (DOE), and US Department of Agriculture (USDA) - Agricultural Research Service (ARS) to allow the recipients to focus their studies in plant genomics with an emphasis on quantitative genetics, modern breeding approaches, and bioinformatics. These fellowships are designed to provide active mentoring of the Fellows by the sponsoring scientists who will benefit from having these talented young scientists in their research groups. The research and training plan of each fellowship must address important scientific questions within the scope of the goals of the NPGI and the specific guidelines in this Solicitation. Opportunities to participate in research in USDA-ARS laboratories and the DOE's Joint Genome Institute will be possible as part of the training activities for the postdoctoral fellows. International training may be included in the research plan provided that it is relevant to the goals of the NPGI and within the scope of this Program.

Competitive Area 4. International Postdoctoral Research Fellowships in Biology (IPRFB)

The IPRFB gives the recipients an opportunity to conduct an independent research project abroad and establish international collaborations early in their careers, thereby furthering their research capacity and global perspectives. Applicants must propose a sponsoring scientist who is a foreign national and can host the Fellow at an appropriate foreign institution of higher education and/or research, including colleges and universities, institutes, centers, government facilities, museums, field stations, marine laboratories, non-profit research organizations and foreign centers of excellence located outside the United States, for the duration of the fellowship. An applicant cannot request an international research location in his/her country of origin.

II. PROGRAM DESCRIPTION

Fellowship Competitive Area 1: Broadening Participation in Biology Through this program, BIO seeks to increase the diversity of scientists at the postdoctoral level in biology, and thereby contribute to the future vitality of the Nation's scientific enterprise. Groups that are significantly underrepresented in biology in the U.S. include Native Americans, including Alaskan Natives and Native Pacific Islanders, African Americans, and Hispanics. Individuals with disabilities are also under represented. The goal of the program is to prepare minority biologists and others who share NSF's diversity goals for positions of scientific leadership in academia, industry, and government. The research and training plan in these applications must fall within the purview of BIO and explain how the fellowship award will broaden or effectively encourage the broadening of participation of underrepresented minorities in biology supported by BIO.

Fellowship Competitive Area 2: Intersections of Biology and Mathematical and Physical Sciences and Engineering. The purpose of these fellowships is to provide interdisciplinary postdoctoral research and training opportunities to junior researchers who have conducted doctoral research in biology or physical and mathematical sciences and who present a research and training plan at the intersection of biology with mathematics, statistics, physical sciences or engineering. These fellowships require dual mentorship of the Fellow. The mentors must write one integrated statement that is part of the application. An applicant trained in biology must present a research and training plan to gain expertise, techniques, or knowledge in physical or mathematical sciences or engineering and apply it to research topics in biology. An applicant trained in physical or mathematical sciences or engineering must present a research and training plan using biological systems. The research proposed must fall within BIO's purview. Descriptions of research appropriate for NSF are found at http://www.nsf.gov/ under Funding Opportunities, Program Areas using the drop down menu. The goal of the fellowships is to provide an opportunity for cross-training to enhance the Fellow's ability to conduct integrative and interdisciplinary research.

Fellowship Competitive Area 3: National Plant Genome Initiative (NPGI) Postdoctoral Research Fellowships Plant improvement is undergoing a revolution through the application of new tools for genotyping and phenotyping, and in the quantitative theory used for selection. In addition, the flood of data being generated requires new computational tools to provide an effective framework for basic plant biology research and plant improvement. The purpose of these fellowships is to provide postdoctoral training opportunities that target interdisciplinary research in plant improvement and associated sciences such as

physiology and pathology, quantitative genetics, and computational biology. Applicants with strong backgrounds in a single disciplinary area may consider expanding their expertise with research in associated fields. For example, a Ph.D. in plant breeding may consider a fellowship in statistical genetics with a focus on application to plant improvement. Plant breeding is increasingly interdisciplinary and requires sophisticated modeling and experimental techniques; therefore, new connections are needed between biology and the mathematical/computational/statistical sciences.

The research and training plan of each fellowship must address important scientific questions within the scope of the goals of the NPGI (http://www.nsf.gov/bio/pubs/reports/npgi_five_year_plan_2009_2013.pdf) and the specific guidelines in this Solicitation. The overall goal of the NPGI is to develop a basic knowledge of the structures and functions of plant genomes and translate this knowledge to a comprehensive understanding of all aspects of economically important plants and plant processes of potential economic value. By bridging basic research and plant performance in the field, the NPGI aims to accelerate basic discovery and innovation in economically important plants and enable enhanced management of agriculture, natural resources, and the environment to meet societal needs.

The panel reviews will be managed by NSF Program Directors and observed by USDA-ARS National Program Leaders and DOE Program Directors in programmatic areas relevant to Fellowship Competitive Area 3. As part of Competitive Area 3, applicants are encouraged to consider sponsors located at the DOE Joint Genome Institute (JGI) and USDA-ARS laboratories. Fellows undertaking part or all of their research activities at the JGI will have the opportunity to contribute to improvements in genome assembly, annotation, and community access (through web-based activities such as Phytozome, Gramene, etc.) for completed, ongoing or planned plant genome projects. The list of such projects is available at http://genome.jgi-psf.org/programs/plants/index.jsf. Interested candidates must identify a specific project and address how their scientific expertise and career development would benefit from this interaction with the JGI.

Successful applicants will be supported by either NSF or USDA-ARS. Depending on the focus and location of the proposed research, up to five successful applicants may be supported by USDA-ARS fellowships. Applicants selected for support by USDA-ARS will be contacted directly by NSF and informed of their selection for these additional fellowship opportunities. They will be instructed to withdraw their application to this Program as "funded elsewhere" and USDA-ARS will then initiate the appointment of these fellows directly. All other awards will be made by NSF.

Fellowship Competitive Area 4: International Postdoctoral Research Fellowships in Biology: In cooperation with NSF's Office of International Science and Engineering, biologists may apply for an international postdoctoral fellowship in any area of biology supported by the Directorate of Biological Sciences at NSF.

Support of international activities is an integral part of the NSF 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 collaborations, and of helping ensure that future generations of U.S. scientists gain professional experience beyond this nation's borders early in their careers.

Fellowship applicants can apply for international experiences from any of the four Competitive Areas. However, if the proposed work fits within the scope of Competitive Areas 1, 2, or 3 which are priority areas within the BIO Directorate, the applicant should submit to these areas with an international sponsoring scientist. Competitive Area 4 is for international postdoctoral research projects which do not fit within the scope of Competitive Areas 1, 2, or 3.

General description of BIO Postdoctoral Fellowships

A. Appropriateness for BIO and Program Priorities

For Competitive Areas 1, 2, and 4, a research and training plan with a focus within the scope of any of the core programs in the Directorate for the Biological Sciences (BIO) is eligible for support. Further restrictions may apply for particular postdoctoral competitions. Be aware: "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. Animal models of such conditions or the development or testing of drugs or other procedures for their treatment also are not eligible for support." See NSF Grant Proposal Guide, http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg. While it is expected that research of fundamental biological significance may often have broader impacts to medicine and human health, applications determined to have a clear biomedical focus will be returned without review. If your proposal mentions human disease, you should discuss its appropriateness with one of the listed Program Officers. Priority is given to research areas where BIO plays a unique or special role among NSF programs and total Federal funding. If your research is in an area of biology not primarily funded by BIO or if you are uncertain, you are strongly encouraged to contact one of the BIO Program Officers to discuss the appropriateness of the research.

B. Location of Work

Research and training supported by these fellowships may be conducted at any appropriate U.S. or international host institution. Appropriate institutions include colleges and universities, private nonprofit institutes and museums, and government installations and laboratories.

Because the objectives of the fellowships include broadening the perspectives and experiences of the Fellows and promoting interdisciplinary research careers, careful consideration should be given to the selection of the sponsoring scientists and host institutions.

BIO encourages Fellows to gain international experience by selecting international hosts for at least part of the tenure of the fellowship when applying to Competitive Areas 1, 2, and 3. For example, in addition to non-US academic institutions, NPGI (Competitive Area 3) applicants may consider the Consultative Group on International Agricultural Research (CGIAR) Centers as potential hosts for international activities. See http://cgiar.org/centers/index.html for list of locations.

Applicants to Competitive Areas 1, 2, and 3 who plan to spend more than one year of the fellowship in a sponsoring laboratory overseas may request a 3-year fellowship that may include the final year at a U.S. laboratory after the international tenure. Both the international and U.S. locations must be included in the sponsoring scientist statement in the application.

For Competitive Area 4, the research location must be outside the U.S. for the entire tenure of the fellowship and may not exceed 2 years. An applicant also cannot request an international research location in his/her country of origin.

C. The Sponsoring Scientist(s)

The Fellow must affiliate with a host institution(s) at all times during the entire tenure of the fellowship and select a sponsoring scientist(s) who will provide mentoring and guidance for both the research and training proposed by the applicant. The applicant is responsible for making prior arrangements with the host institution and sponsoring scientist(s). Regardless of the number of sponsors or locations, the fellowship application requires a single sponsoring scientist statement. When more than one sponsor is proposed, one must be named lead sponsor and information from all sponsors must be integrated into a single statement. Likewise, if more

than one site is proposed, the sponsoring scientist statement must integrate all sponsors and locations in a single statement. Because of the increasingly important intersections of other fields with biology, it is expected that dual sponsorship will be common and it ***is required*** for Competitive Area 2 fellowships at the intersection of biology and mathematics, physical sciences, or engineering. For Competitive Area 4, the host scientist(s) may not be a U.S. citizen or have permanent U.S. resident status.

An important basis for judging the suitability of the host institution is the degree to which the sponsoring scientist statement describes and offers a research environment and mentoring plan that could not be provided without fellowship support.

If a fellowship is offered, the applicant may be requested to provide documentation from the host institution that the terms and conditions of the fellowship are acceptable and that the Fellow will be provided adequate mentoring, space, basic services, needed resources, and supplies. Once an application is submitted, any changes in location or sponsorship for the fellowship must be approved in advance by BIO.

D. Teaching Option for Undergraduate Education (Competitive Areas 1 and 2 only.)

Applicants to either Competitive Area 1 or 2 may include a plan for up to an additional 12 months of support during which the Fellow would gain experience in teaching at the undergraduate level and receive mentoring in teaching effectiveness in undergraduate settings. The teaching option is intended to be taken up following the completion of the research and training plan but may be requested at other times with the concurrence of the sponsoring scientist(s).

BIO recognizes the importance of developing effective teaching skills of future undergraduate biology faculty as a means to foster improvements in undergraduate biology education nationally. The discipline of biology has changed dramatically in the last several decades, owing to significant discoveries, an explosion of biological information, and recent technological advances that have transformed the way biologists conduct research. New discoveries in cognitive sciences have led to improved understanding of how students learn. Simultaneous with these scientific advances, students who are interested in studying biology increasingly wish to be engaged in course experiences that are relevant to pressing societal challenges, such as global change, and sustainability. These contextual factors challenge us to consider the nature of undergraduate biology education, and have resulted in a national dialog and growing consensus about the need to improve undergraduate biology education. These issues were the subject of a recent meeting of undergraduate biology education stakeholders. A summary of recommendations from that meeting may be found in the report *Vision and Change: A Call to Action*.

Project plans should reflect acknowledgement of the significant numbers of both majors and non-majors who enroll in biology courses, and that these students have diverse aspirations and career goals. Teaching plans should focus on professional skills development in one or more of the following areas:

- Articulation of student learning goals that are focused on conceptual understanding of core concepts in biology
- Teaching approaches based on an understanding of current knowledge of how students learn
- Effective use of assessment of student learning, and evaluation of the results to adjust instructional approaches to continuously improve student learning

The most competitive projects will include opportunities for Fellows to teach and to receive mentoring in teaching effectiveness. Such training need not be restricted to the institution where the research component of the fellowship occurred. However, the option aimed at developing pedagogical skills is not intended to disrupt progress on research efforts completely. Creative plans in which the Fellow gains experience in teaching, is mentored in becoming an effective teacher, and continues to make progress on research aims are encouraged.

III. AWARD INFORMATION

A. Duration and Tenure

Competitive Areas 1, 2 and 4.

The fellowship tenure for Area 1, broadening participation, is normally 36 continuous months. The fellowship tenure for Area 2 is normally 24 continuous months except when the Fellow spends more than a year abroad. In this case, the original application may request a 36-month tenure. Both fellowships can also include the teaching option for up to an additional 12 months. The budget for the teaching option will be negotiated on a case-by-case basis. The fellowship tenure for Area 4 is normally 24 continuous months. Tenure begins on the first of the month only and may commence at the Fellow's request between June 1, 2014 and January 1, 2015. Interruptions in tenure or extensions without additional cost to NSF are permitted only for extenuating circumstances beyond the control of the Fellow and require NSF approval. Fellowships are not renewable.

Competitive Area 3.

The fellowship tenure for Area 3, NPGI Postdoctoral Fellowships, is 36 continuous months. Tenure begins on the first of the month only and may commence at the Fellow's request between June 1, 2014 and January 1, 2015. Interruptions in tenure or extensions without additional cost to NSF are permitted only for extenuating circumstances beyond the control of the Fellow and require NSF approval. Fellowships are not renewable.

B. Stipend and Allowances

For the basic fellowship (without exercising a teaching option), the total fellowship amount is $69,000 per year and consists of two types of payments: a stipend and a fellowship allowance. A monthly stipend of $4,500 is paid directly to the Fellow. The teaching option budget will be negotiated on a case-by-case basis and may carry a monthly stipend of up to $4,500 if paid during a fourth year. A fellowship allowance of $15,000 per year is provided and spent at the Fellow's discretion, except foreign travel, which requires prior NSF approval. This allowance is intended to cover costs of the fellowship and fringe benefits. Allowable research costs include travel, such as short-term visits to other institutions or laboratories, field work, and attendance at scientific meetings; training, special equipment, IT equipment and software, supplies, publication costs, access fees for databases and other research-related expenses. The Fellow should keep records to document expenditures. Allowable costs for fringe benefits include individual or family health insurance (any combination of medical, vision, and/or dental) whether purchased as a group or individual plan, disability insurance, retirement savings, dependent care, and moving expenses. All payments are made directly to the Fellow as an electronic funds transfer into a personal account at a financial institution.

Within the fellowship period, one month per year of fellowship duration may be used for paid leave, including parental or family leave. The paid leave cannot be used to increase the level of NSF support beyond the duration of the fellowship. NSF enables career-life balance through a variety of mechanisms. Support to address dependent care issues may be available for awardees. For more information, please see http://www.nsf.gov/career-life-balance/.

The fellowship amount can be increased to include a Facilitation Award for Scientists and Engineers with Disabilities (FASED). When requesting FASED funding, applicants should contact the Postdoctoral Research Fellowships in Biology program prior to applying. Additional supplements for applicants spending one or more years at international host institutions may be available through joint funding with the Office of International Science and Engineering.

IV. ELIGIBILITY INFORMATION

Organization Limit:

Proposals may only be submitted by the following:

- Only individuals may apply. NSF postdoctoral fellowships are awards to individuals, and applications are submitted directly by applicants to NSF. However, applications must include sponsoring scientists' statements and the applicants must affiliate with institutions (*e.g.*, colleges and universities, and privately-sponsored nonprofit institutes and museums, government agencies and laboratories, and, under special conditions, for-profit organizations) anywhere in the world.

  Applications in all Competitive Areas with international host institution affiliations are eligible for support. Funding from the Office of International Science and Engineering (OISE) may be available for awards with international host institutions. Additional information and requirements for long-term international research collaborations are available at NSF's OISE website (http://www.nsf.gov/od/oise/iprffapp.jsp).

PI Limit:

Applicants must

- be U.S. citizens (or nationals) or permanent residents of the United States (*i.e.*, have a "green card") at the proposal deadline;
- earn or plan to earn the doctoral degree in a scientific, mathematical, or engineering field prior to the requested start date of the fellowship and have not accepted an academic appointment;
- either currently be a graduate student or, at the proposal deadline date, have served in a position requiring the doctoral degree for no more than 12 full time months since earning the degree;
- present a research and training plan that falls within the purview of NSF's Biological Sciences (BIO) Directorate;
- select sponsoring scientists in departments and/or institutions different from the doctoral degree and, for Competitive Areas 1, 2 and 4, different from the current position as well. For Competitive Area 3, applicants planning to stay in their current positions must articulate how the new training planned under this fellowship would meet the goals of the National Plant Genome Initiative.
- not have received Federal funding of more than $20,000 as PI or co-PI (except graduate fellowships and doctoral dissertation improvement grants);
- not have submitted the same project to another NSF program; AND
- not be a named participant on any other proposal submitted to NSF, including regular research proposals, concurrent with the fellowship application, regardless of who is the named principal investigator.

If you fail to meet any eligibility criterion, your application will be returned without review.

Limit on Number of Proposals per Organization:

Only individuals may apply. There is no limit on the number of applicants that an institution may host.

Limit on Number of Proposals per PI or Co-PI: 1

Applicants may submit only one fellowship application to BIO per fiscal year and may apply in no more than 2 successive years for all Postdoctoral Fellowships in Biology.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Instructions: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the guidelines specified 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/publications/pub_summ.jsp?ods_key=gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-PUBS (7827) or by e-mail from nsfpubs@nsf.gov.

Important Proposal Preparation Information: FastLane will check for required sections of the full proposal, in accordance with *Grant Proposal Guide* (GPG) instructions described in Chapter II.C.2. The GPG requires submission of: Project Summary; Project Description; References Cited; Biographical Sketch(es); Budget; Budget Justification; Current and Pending Support; Facilities, Equipment & Other Resources; Data Management Plan; and Postdoctoral Mentoring Plan, if applicable. If a required section is missing, FastLane will not accept the proposal.

Please note that the proposal preparation instructions provided in this program solicitation may deviate from the GPG instructions. If

the solicitation instructions do not require a GPG-required section to be included in the proposal, insert text or upload a document in that section of the proposal that states, "Not Applicable for this Program Solicitation." Doing so will enable FastLane to accept your proposal.

Include all the requested information and documentation and include ***only*** what is specifically requested. Page limits include pictures, figures, tables, graphics, etc. Proposals that do not conform to these requirements and all page limitations will be returned without review. You will not be given a chance to shorten and resubmit the proposal. Proposals must be submitted electronically via the NSF FastLane system. Only complete and timely applications will be accepted; non-compliant applications will be returned without review as will those that are incomplete or late. A complete FastLane submitted proposal requires materials from you (the applicant), a statement and CV from your sponsoring scientist(s), and 2 reference letters (one from the doctoral thesis advisor).

Preparing your fellowship application is different in several ways from preparing a research proposal:

- Do not submit your proposal through a sponsored projects office at your home or host institution; you are submitting the proposal as an individual. You must first register as an individual researcher before you or your references can gain access to the application and reference procedures. To use FastLane, go to the NSF Web site http://www.nsf.gov/ and select "FastLane" or directly to the FastLane home page http://www.fastlane.nsf.gov/. Click on the *Postdoctoral Fellowships and Other Programs* tab. Click on "Applicant", then select Postdoctoral Research Fellowships in Biology. Complete step-by-step instructions on "How to apply" may be found on the program webpage.

- The information needed from the sponsoring scientist(s) is found on the FastLane homepage after answering "Sponsoring Scientist" to the "Who are you?" question. The sponsoring scientist statement and CV(s) must be uploaded into the application.

- The information needed from the reference writers is found on the FastLane homepage after answering "Letter of Reference Writer" to the "Who are you?" question. Your references enter their letters directly into FastLane.

A complete postdoctoral fellowship application consists of the following (Note: *The entire application, with the exception of the letters of reference and sponsoring scientist information, must be submitted by the fellowship applicant in FastLane)*:

(1) NSF Cover Page;

(2) FastLane application form (this form is unique to fellowships and can only be accessed in FastLane by following the directions as described herein. Applications in which the form is incomplete will be returned without review. Write in None or N/A if you have no information to provide for some of the items);

(3) Project Summary (Abstract) (limited to one page) of the proposed research and training including specific and separate statements for both intellectual merit and broader impacts. See Section VI. A. below for guidance from the National Science Board on broader impacts. If the project summary fails to clearly address in separate statements the intellectual merit and broader impacts of the proposed activity, the application will be returned without review. If you are applying to Competitive Area 2, Intersections of Biology and Mathematical and Physical Sciences and Engineering, you must also include a clear and concise statement of the intersection, the mentor from biology, and the mentor identified by field of mathematical or physical science or engineering;

(4) Project Description (Research and Training Plan) (limited to 6 pages, including all figures, tables, etc.) including a timetable with yearly goals with benchmarks for major anticipated outcomes and a description of future research and career directions;

(5) References Cited: bibliography for Project Description (no page limit);

(6) Biographical Sketch: Applicant's Curriculum Vitae (CV) limited to 2 pages (list publications and abstracts separately);

(7) Current and Pending Support: Include current and planned applications to other fellowship programs.

(8) Supplementary Documentation consisting of:

- An abstract of your dissertation research (limited to one page);
- A teaching plan (limited to 3 pages) if the teaching option is being requested;
- The sponsoring scientist(s) statement (limited to 3 pages) and 2-page CV(s); and
- A Data Management plan. *All* applications *must* include a supplementary document of no more than 2 pages labeled "Data Management Plan" that describes plans for data management and sharing of the products of research, or asserts the absence of the need for such plans.

(9) Two letters of reference, submitted directly in FastLane by the reference writers.

Guidance on the Project Description (Research and Training Plan):

The research and training plan presents the research that you will conduct and the training that you will receive during the fellowship period and how they relate to your career goals. Include in the research and training plan: 1) a brief and informative introduction or background section; 2) a statement of research objectives, methods, and significance; 3) training objectives and plan for achieving them (these may include scientific as well as other career preparation activities); 4) an explanation of how the fellowship activities will enhance your career development and future research directions as well as describing how this research differs from your dissertation research; 5) a justification of the choice of sponsoring scientist(s) and host institution(s); 6) a timetable with yearly goals with benchmarks for major anticipated outcomes. As with all NSF proposals, broader impacts must also be addressed.

Some applications may require other documentation before the final decision can be made, *e.g.*, animal care and use, human subjects, government permits, letters of collaboration, and commitments from private sources. Their existence should be noted in the research and training plan, but they should ***not*** be included in the application. NSF may request them later.

Guidance on the Sponsoring Scientist(s) Statement:

The sponsoring scientist(s) statement is meant to show how the proposed host(s) and host institution(s) provide the best environment for the Fellow's proposed research and training plan and form the basis for a future independent research career. Therefore, it should include a specific mentoring plan, a description of how the Fellow's independence will be nurtured, and what aspects of the project, if any, cannot go when the Fellow leaves. Regardless of the number of sponsors, one integrated statement must be developed and submitted. If the Fellow plans to teach as part of career development activities, the Fellow is limited to teaching in a course taught by the sponsoring scientist(s) or as part of a course directly related to the Fellow's doctoral or fellowship research project. The sponsoring scientist(s) statement must detail the mentoring that the Fellow will receive on teaching if applicable. Sponsors are not expected to provide all the mentoring themselves and may call on all resources available on campus or through other organizations, *e.g.*, professional societies, postdoctoral offices, etc.

Reminder: A complete sponsoring scientist statement consists of two parts; a CV of no more than two pages for each sponsor and a single discussion (no more than 3 pages) of the following items:

1. A brief description of the research projects in the host research group(s), including a statement of current and pending research support, both private and public, for each sponsor. If any sponsor has submitted similar research for funding, the degree of overlap must be addressed.

2. A description of how the research and training plan for the applicant would fit into and complement ongoing research of the sponsor(s) as well as an indication of the personnel with whom the Fellow would work.

3. An explanation of how the sponsor(s) will determine what mentoring the applicant needs in research, teaching, and career development skills and how these would be translated into a specific plan that fosters the development of the applicant's future independent research career.

4. A description of the role the sponsor(s) will play in the proposed research and training and the other resources that will be available to the Fellow to complete his or her training plan during the fellowship.

5. A description of the limitations, if any, that will be placed on the Fellow regarding the research following the fellowship.

6. A description of mentoring for teaching if the Fellow has selected the teaching option.

The sponsoring scientist statement should be uploaded into your application as a "Supplementary Document" in FastLane.

Guidance on the Reference Letters

Your application must also include the two references as listed on your application form. One should be your thesis advisor. Do not use your sponsoring scientist as a reference. Your references will need your FastLane-assigned temporary proposal number and a password that you assign. FastLane permits you to send them an email with this information or you can provide it to them directly. They must change the password the first time they login to the reference module. They complete a reference form in FastLane, upload a recommendation letter, and then submit the reference.

Proposal-submission Check List

This checklist is provided to aid in the preparation of the proposal, the burden to ensure that the proposal is complete and meets all of the solicitation requirements remains with the Principal Investigator.

Description	Competitive Areas			
	1	2	3	4
FastLane Application Form	X	X	X	X
Project Summary with specific sections for both intellectual merit and broader impact (1 page)	X	X	X	X
Project Description (6 pages)	X	X	X	X
References	X	X	X	X
Biographical sketch (2 pages)	X	X	X	X
Applicant's Current and Pending Support	X	X	X	X
Abstract of Dissertation Research (1 page)	X	X	X	X
If requesting the teaching option, teaching plan (3 pages)	X	X		
Sponsoring Scientist Biographical Sketch (2 pages)	X	X	X	X
Second Sponsoring Scientist Biographical Sketch (2 pages)		X		
Sponsoring Scientist statement (3 pages max)	X	X	X	X
Data Management Plan (2 pages)	X	X	X	X

Proposers are reminded to identify the program solicitation number NSF 12-497 in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost Sharing: Inclusion of voluntary committed cost sharing is prohibited

Other Budgetary Limitations:

The award amount is set for all domestic fellowships based on the duration of the award. FastLane generates the budget; applicants do not need to enter any budget information. The research and training plan should make clear the requested duration.

For Competitive Area 4, the award budget is negotiated after an offer of a fellowship is made based on costs in the foreign location. The auto-generated FastLane budget will be changed prior to making the award. See http://www.nsf.gov/od/oise/iprffapp.jsp for information on foreign tenures in general for postdoctoral fellowships.

C. Due Dates

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

  October 30, 2012

  October 08, 2013

D. FastLane Requirements

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

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

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

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

A. NSF Merit Review Criteria

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

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

Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

Additional Solicitation Specific Review Criteria

Applicants are evaluated on their ability and accomplishments as evidenced by the submitted *CV*. The research and training plan is evaluated on its scientific merit, its feasibility, its significance in generating new biological knowledge, how the research is distinct from the dissertation research, and its impact on the career development of the applicant. Other important evaluative factors are the suitability and availability of the sponsoring scientist(s) and host institution(s), including colleagues and facilities.

For Competitive Area 2, Intersections of Biology and Mathematical and Physical Sciences and Engineering, applications may first be screened by NSF program officers for the potential for cross-training that promises to enhance the applicant's ability to conduct integrative or interdisciplinary research. Project summaries (abstracts) must clearly describe the intersection of biology with one of the mathematical or physical sciences or engineering and must identify the mentor who is the biologist and the mathematician or physical scientist or engineer who is the other mentor. If the potential for cross-training is judged insufficient, the applicant will be notified and given the basis for the determination. The application will be returned without review as "not responsive to the program solicitation".

Applicants in Competitive Areas 1 and 2, who select the additional teaching year option, must include a teaching plan which covers how the Fellow would gain experience in teaching at the undergraduate level and receive mentoring in teaching effectiveness in undergraduate settings.

For Competitive Area 3, National Plant Genome Initiative Postdoctoral Research Fellowships, applicants may first be screened by NSF Program Directors for the relevance of the proposed research and training to the goals of the National Plant Genome Initiative and this Postdoctoral Fellowship opportunity. Project summaries must clearly describe the relevance of the proposed research and training to the goals of the National Plant Genome Initiative as well as this Postdoctoral Fellowship opportunity. Applications lacking this information or where the relevance is insufficient will be returned without review as "not responsive to the program solicitation".

For Competitive Area 4, International Research Fellowships in Biology, reviewers will also consider the benefits to the applicant, the research discipline, and the United States and the expected mutual benefits to be derived from the proposed collaboration of the

scientists in each country. If an applicant requests a foreign research location in his/her country of origin, the application will be returned without review as "not responsive to the program solicitation". Applicants who received their Ph.D. at a foreign institution will be given lower priority. Any potential applicants who have international experience or are already at the host site, must contact the Program Manger before submitting an application to verify suitability.

NSF staff also 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.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review 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.

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

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

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

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

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

B. Award Conditions

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

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

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Award & Administration Guide* (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

Special Award Conditions: The fellowship award is made to the individual, not the institution and payments are made directly to the Fellow. Awards cannot be extended without prior NSF approval. Pre-award costs are not permitted.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer at least 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). Within 90 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the NSF *Award & Administration Guide* (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

Additional Reporting Requirements:

Applicants must file starting and termination certificates in addition to annual and final technical reports.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Carter Kimsey, Competitive Area 4, telephone: (703) 292-7170, email: bio-dbi-prfb@nsf.gov
- Diane J. Okamuro, Competitive Area 3, telephone: (703) 292-4400, email: dbipgr@nsf.gov

For questions related to the use of FastLane, contact:

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

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, "My NSF" 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 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. "My NSF" also is available on NSF's website at http://www.nsf.gov/mynsf/.

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

ABOUT THE NATIONAL SCIENCE FOUNDATION

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

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

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

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

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

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

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

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

- Location: 4201 Wilson Blvd. Arlington, VA 22230
- For General Information (NSF Information Center): (703) 292-5111
- TDD (for the hearing-impaired): (703) 292-5090
- To Order Publications or Forms:

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

  or telephone: (703) 292-7827
- To Locate NSF Employees: (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

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

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0023. Public reporting burden for this collection of information is estimated to average 12 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Office of the General Counsel
National Science Foundation
Arlington, VA 22230