

## Postdoctoral Fellowships in Polar Regions Research

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### PROGRAM SOLICITATION

NSF 09-612

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### REPLACES DOCUMENT(S):

NSF 08-501

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#### National Science Foundation

Office of Polar Programs  
Division of Arctic Sciences  
Division of Antarctic Sciences

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

December 28, 2009

Fellowship Proposal Deadline

October 18, 2010

Fellowship Proposal Deadline

October 18, 2011

Fellowship Proposal Deadline

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

Proposals Accepted Anytime

Travel Grant Proposals -- Submission at least 3 months before the Fellowship deadline is encouraged

### IMPORTANT INFORMATION AND REVISION NOTES

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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. Proposers who opt to submit prior to January 18, 2011, must also follow the guidelines contained in [NSF 11-1](#).

**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

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#### General Information

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##### Program Title:

Postdoctoral Fellowships in Polar Regions Research

##### Synopsis of Program:

The Postdoctoral Fellowships in Polar Regions Research program supports training and research for recent doctoral degree recipients in any aspect of scientific study of the Antarctic and/or the Arctic within the Division of Polar Programs (POLAR) program areas (<http://www.nsf.gov/div/index.jsp?div=plr>). The program also provides travel grants to those eligible for fellowships for the purpose of meeting prospective mentors and colleagues, presenting seminars, discussing mutual research and/or education interests, evaluating facilities and professional development opportunities, and initiating collaborative relationships.

The fellowship program develops and trains recent Ph.D.s (especially those new to polar research) with

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concomitant goals to

- promote scientific research in polar regions;
- support innovative research in emerging areas;
- encourage interdisciplinary research;
- foster activities that create broader impacts for science and society; and
- increase the participation of under-represented groups in polar regions research.

## 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.

- (Virginia) C. Carter, telephone: (703) 292-4651, email: [vccarter@nsf.gov](mailto:vccarter@nsf.gov)

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

- 47.078 --- Office of Polar Programs

## Award Information

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**Anticipated Type of Award:** Fellowship or Fellowship and Travel Grants

**Estimated Number of Awards:** 5 Fellowship awards are anticipated in each fiscal year (FY 2010, FY 2011, and FY 2012). Up to 10 Travel awards are anticipated in each fiscal year (FY 2010, FY 2011, and FY 2012).

**Anticipated Funding Amount:** \$1,000,000 will be available each year in FY 2010, FY 2011, and FY 2012, pending availability of funds

## Eligibility Information

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### Organization Limit:

Proposals may only be submitted by the following:

- Fellowship proposals are submitted directly by individuals, but each candidate must identify one or more U.S. sponsoring scientists and a U.S. host organization before submitting a proposal. Examples of appropriate U.S. host organizations are colleges and universities, government and national laboratories and facilities, and publicly and privately sponsored organizations such as nonprofit institutes, museums, and for-profit organizations.

### PI Limit:

**Fellowships:** The fellowship candidate must submit his or her fellowship proposal directly to NSF. Fellowships will be awarded to individuals.

Eligibility limitations apply. Please see the [Additional Eligibility Information section](#) of this solicitation for further information.

**Travel Grants:** The fellowship candidate must submit his or her travel grant proposal directly to NSF. Travel awards will be made to individuals.

### Limit on Number of Proposals per Organization:

None Specified

### Limit on Number of Proposals per PI:

Fellowship candidates may submit only one travel grant request and one fellowship proposal prior to each deadline. There is no limit on the number of candidates or Fellows that an organization may host.

## Proposal Preparation and Submission Instructions

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### 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:** Indirect costs are not allowed in either fellowships or travel grants. Fellowships provide an institutional allowance of \$5,000 as partial reimbursement of direct and indirect costs.
- **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):

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December 28, 2009

Fellowship Proposal Deadline

October 18, 2010

Fellowship Proposal Deadline

October 18, 2011

Fellowship Proposal Deadline

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

Proposals Accepted Anytime

Travel Grant Proposals -- Submission at least 3 months before the Fellowship deadline is encouraged

## Proposal Review Information Criteria

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**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

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**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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## I. INTRODUCTION

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**Postdoctoral Fellowships:** The Division of Polar Programs (POLAR) offers Postdoctoral Fellowships in Polar Regions Research to highly qualified individuals in U.S. host institutions to support training and research in any aspect of scientific study of the Antarctic and/or the Arctic within POLAR program areas (<http://www.nsf.gov/div/index.jsp?div=plr>). This funding activity will identify and support postgraduate scientists who will contribute their disciplinary knowledge and skills to the study of polar regions. The postdoctoral Fellow will receive professional skills development and career development guidance while working with a U.S. sponsoring scientist and potentially with international collaborators. Fellowships promote human resource development in conjunction with the advancement of scientific knowledge and understanding and the attraction of new technologies and expertise to polar regions research. This fellowship program is one way that POLAR contributes to the "Learning" goal of the National Science Foundation's (NSF) Strategic Plan for FY2006 - FY2011 (NSF 06-48) ([http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf0648](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf0648)).

Collaboration with non-U.S. colleagues is encouraged. Any funds to support travel outside of the United States, however, must be clearly justified in terms of the benefits to the Fellow's professional development and to the proposed research plan. The prospective Fellow's sponsoring U.S. scientist must also show written support of the Fellow's proposed foreign travel in the mentoring plan.

**Travel Grants:** Candidates eligible for postdoctoral fellowships may apply - in advance of their fellowship applications - for travel

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grants to meet prospective mentors within the United States. Travel grants can pay travel expenses (including per diem) to one or two U.S. institutions for the purpose of meeting prospective mentors and colleagues, presenting seminars, discussing mutual research and/or education interests, evaluating facilities and professional development opportunities, and initiating collaborative relationships.

This Fellowship Program is intended to facilitate the professional development and training of early career scientists in polar regions research, and to

- support innovative research in emerging areas;
- introduce new investigators to research in the polar regions;
- encourage interdisciplinary and cross-polar research;
- foster activities that create broader impacts for science and society; and
- increase the participation of underrepresented groups in polar regions research.

NSF postdoctoral fellowships provide opportunities for recent doctoral degree recipients to obtain additional training and career development guidance; to gain research experience, under the sponsorship of established scientists, that furthers the transition to independence; to undertake synergistic activities that foster development of skills and progress towards career goals; and to broaden scientific horizons beyond the experiences gained during undergraduate and graduate training. Postdoctoral fellowships help new scientists to direct their research in and across traditional disciplinary lines and provide research opportunities at unique sites and facilities.

Where appropriate, collaboration with non-U.S. colleagues is encouraged. If requests for funds to support travel outside of the United States are included in the proposal, the Fellow must include clear justification for the foreign travel in their proposal, and the prospective Fellow's sponsoring scientist should include a discussion of the benefits of the Fellow's proposed foreign travel in the mentoring plan.

## II. PROGRAM DESCRIPTION

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### Fellowships

The Postdoctoral Fellowships in Polar Regions Research program supports training and research for recent doctoral degree recipients in any aspect of scientific study of the Antarctic and/or the Arctic; research projects that address the occurrence, causes, and/or responses to changes in the polar environment are particularly encouraged. The program also provides travel awards for persons otherwise eligible to apply for the fellowships to visit prospective sponsoring scientists at their organizations, to facilitate the establishment of professional collaborations and mentor-candidate relationships. See "Travel Grants" section below for specific information.

These Fellowships are intended to promote career development of recent Ph.D.'s, to advance scientific knowledge and understanding, and to attract new technologies and expertise to polar regions research. In collaboration with sponsoring scientists, fellowship candidates should propose research and training plans that outline opportunities relevant to their career goals, such as developing novel conceptual approaches, enhancing technical skills, gaining field or teaching experience, participating in education and outreach activities, or forming industry partnerships. It is not expected that each fellowship candidate will propose a research and training plan that meets *all* of the fellowship program goals; rather, candidates should identify activities that contribute their knowledge and skills to the scientific study of polar regions, that foster their research interests and talents, that promote the development of skills and competencies appropriate to their career goals, and that address the merit review criteria identified in this solicitation.

Each fellowship proposal must include an invitation from the Fellow's sponsoring scientist and their U.S. host organization, as well as an explicit commitment from the sponsoring scientist to mentor the Fellow and to support the Fellow's research, as discussed in the Proposal Preparation section of this solicitation. Fellows' research and training may be conducted at any appropriate U.S. host organization, including colleges and universities, government and national laboratories and facilities, and publicly and privately sponsored organizations such as nonprofit institutes, museums and for-profit organizations. Co-sponsors and multiple research/training sites are permitted and may be particularly appropriate to pursue collaborative opportunities such as interdisciplinary research, industry partnerships, teaching experiences, or outreach activities. Travel to other countries for the purpose of conducting collaborative research and for taking part in professional training activities may be included in the proposal budget. This travel must be fully justified in the context of the Fellow's proposed research program and must be supported in writing by the Fellow's lead sponsoring scientist. Regardless of the number of sponsoring scientists and research/training sites proposed, a lead sponsor and a primary host organization in the United States must be identified. This primary host organization will receive the institutional allowance. The candidate is responsible for making all prior arrangements with the sponsoring scientist(s) and host organization(s).

In general, NSF expects that the Fellowship award will be made for an appointment at an institution other than the Fellow's graduate institution. Consequently, candidates proposing to stay at their current institution must have extremely strong justification and must clearly explain the benefits and advantages of this choice to their research and training goals. Awards to Fellows wishing to remain at their graduate institutions will be critically evaluated in the context of the potential benefits of this choice versus those that may arise from expanding professional contacts and diversifying professional experience at a new institution.

### Travel grants

Travel Grants may be awarded to eligible candidates to support costs of travel to meet prospective sponsoring scientists in their U.S. host organizations. Although they are not a prerequisite for an application for a Fellowship Award, Travel Grants will not be awarded subsequent to the candidate's submission of a postdoctoral fellowship proposal. Travel Grants will support travel and per diem expenses incurred during visits to one or two organizations to: meet prospective mentors and colleagues; present seminars; discuss mutual research and/or education interests; evaluate facilities; and/or to discuss professional development opportunities. The purpose of the Travel Grant is to initiate collaborative relationships between prospective fellows and potential sponsoring scientists. Travel grants will not be awarded for foreign travel.

Proposals for travel grants should only be submitted after preliminary discussions between candidates and their prospective sponsoring scientists. Travel grant proposals require justifications for the selection of the proposed host organization(s) and sponsoring scientist(s), a detailed description of the purpose of each trip, and an anticipated travel budget. By the time the proposal is submitted, prospective sponsoring scientists must provide a letter of support indicating (1) agreement with the proposed travel plans and (2) support for the candidate's potential affiliation with the host organization as a Postdoctoral Fellow.

### Additional Information

Additional information about the Postdoctoral Fellowship in Polar Regions is available at the following links: [Information for Polar](#)

### III. AWARD INFORMATION

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POLAR anticipates annually awarding 5 fellowships and 10 to 15 travel grants. Fellowships are awarded for a continuous period of up to 3 years. In FY 2010, POLAR anticipates that up to \$1 Million will be available for Polar Postdoctoral fellowships and travel awards, depending on availability of funds.

Candidates should justify the length requested for the fellowship in the proposal. POLAR anticipates that fellowships typically will be 1 to 2 years long; in rare cases, 3-year fellowships are possible if the rationale for the third year is compelling. Fellowships cannot be renewed. Interruptions in tenure or extensions without additional cost to NSF are permitted in concurrence with the host organization for extenuating circumstances such as sick leave or family leave.

One- and two-year fellowships will be awarded as standard grants. Three-year fellowships will be awarded as continuing grants with each having a two-year initial increment followed by a one-year continuing increment. Funding for the third year is contingent on demonstration of satisfactory progress through submission of a project report.

The fellowship amount can be as much as \$75,000 per year consisting of four components:

- an annual stipend of \$50,000, paid monthly directly to the Fellow;
- an annual research allowance of up to \$11,000, provided to the Fellow, in support of proposed research and training activities such as materials and supplies, equipment, subscription fees, publication expenses, recovery costs for databases, computing resources, and travel;
- an annual institutional allowance of \$5,000 as partial reimbursement of direct and indirect costs including expenses incurred in support of the Fellow such as general purpose supplies, the use of equipment and facilities and fringe benefits exclusive of health insurance; and
- an annual health insurance allowance of up to \$3,600 for a single Fellow, up to \$6,000 for a Fellow with one dependent, and up to \$9,000 for a Fellow with two or more dependents. Health insurance is anticipated to include basic health insurance and dental insurance provided through either a group plan offered by the host organization or an individual plan secured by the Fellow. The anticipated cost and recipient of the allowance (i.e., Fellow or host organization) must be identified in the proposal.

Additional funding beyond the annual \$75,000 fellowship award is also available for logistical and operational support of field research in polar regions. The structure of this award component and the related proposal preparation instructions require applicants to justify both the scope and costs of any proposed fieldwork. Required supplementary documents and review of this award component differ between the arctic and antarctic research support sections and are outlined in the full program solicitation. The awards generally are not intended to support additional personnel, but well justified requests for supplements for short-term employment of laboratory or field technicians will be considered by the POLAR Postdoctoral Fellowship Program Officer.

Travel grants shall not exceed \$3,000 per recipient in support of travel and per diem expenses incurred during visits to one or two prospective host organizations before the submission of a postdoctoral fellowship application.

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

### IV. ELIGIBILITY INFORMATION

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#### Organization Limit:

Proposals may only be submitted by the following:

- Fellowship proposals are submitted directly by individuals, but each candidate must identify one or more U.S. sponsoring scientists and a U.S. host organization before submitting a proposal. Examples of appropriate U.S. host organizations are colleges and universities, government and national laboratories and facilities, and publicly and privately sponsored organizations such as nonprofit institutes, museums, and for-profit organizations.

#### PI Limit:

**Fellowships:** The fellowship candidate must submit his or her fellowship proposal directly to NSF. Fellowships will be awarded to individuals.

Eligibility limitations apply. Please see the [Additional Eligibility Information section](#) of this solicitation for further information.

**Travel Grants:** The fellowship candidate must submit his or her travel grant proposal directly to NSF. Travel awards will be made to individuals.

#### Limit on Number of Proposals per Organization:

None Specified

#### Limit on Number of Proposals per PI:

Fellowship candidates may submit only one travel grant request and one fellowship proposal prior to each deadline. There is no limit on the number of candidates or Fellows that an organization may host.

#### Additional Eligibility Info:

Fellowships and travel grants are awards to individuals. Fellowship candidates must submit these proposals directly to NSF. Candidates may submit only one fellowship proposal per year, but there is no limit on the number of Candidates or Fellows that an organization may host. Travel grant proposals must allow ample time for award processing, travel, and proposal preparation prior to a Fellowship deadline. At least 3 months prior to the

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Fellowship deadline is strongly encouraged.

Appropriate U.S. host organizations include colleges and universities, government and national laboratories and facilities, and such publicly and privately sponsored organizations as nonprofit institutes, museums, and for-profit organizations.

An individual is eligible to apply for a Postdoctoral Fellowship or travel grant if all of the following criteria are met:

- The applicant is a U.S. citizen, or legally admitted permanent resident alien of the United States.
- The applicant has earned the doctoral degree in an appropriate scientific field within 4 years of the proposed deadline or will complete a doctoral degree no more than 1 year after the proposal deadline date.
- The applicant has not participated in postdoctoral training for a combined full-time-equivalent duration of more than 3 years at the commencement of the POLAR Fellowship or otherwise provides a statement that justifies further postdoctoral training.
- The applicant proposes a sponsoring institution that differs from the doctoral-granting institution or provides a statement that justifies the lack of change.
- The applicant proposes a research and training plan that falls within the program areas supported by POLAR.
- The applicant has not previously held a Federal research grant, with the exception of graduate fellowships and other sources of individual student support.
- The applicant submits a research plan that has not been submitted in another proposal to any Federal agency.

In the event of being selected for an award, an individual who had not yet received the doctoral degree at the time of submitting the proposal must provide evidence that they are on schedule for completing the Ph.D. within 1 year of the solicitation deadline and must demonstrate that all academic requirements have been completed before beginning the fellowship at the host organization.

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## V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

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### 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](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](mailto:nsfpubs@nsf.gov).

**Important Proposal Preparation Information:** FastLane will check for required sections of the 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.

The following instructions deviate from the GPG guidelines.

The GPG contains information about proposal preparation, submission, review and administration helpful to the proposing community. Style and format rules must be followed to ensure equity among proposals and readability for reviewers and program directors. Proposals may be returned without review for failing to comply with the GPG or the solicitation. Please bear in mind the following:

- Proposals that are resubmissions must be substantially changed from the original,
- Accepted fonts, minimum font size, and maximum lines and characters per centimeter are specified in the GPG (note that proposals with fonts that are too small may be returned without review),
- For host scientists and collaborators, proposers must follow the GPG format rules for biographical sketches; in particular, no more than 10 publications may be listed,
- For efficiency of processing, listings must be arranged alphabetically by last name in the Collaborators, Students, Advisors, Other Affiliations, Suggested Reviewers, and related sections, and
- Fellowship proposals will be reviewed according to both the NSF primary review criteria of intellectual merit and broader impacts, besides the additional review criteria described in this solicitation.

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### FELLOWSHIP PROPOSAL INSTRUCTIONS

Fellowship proposals must be submitted electronically via the NSF FastLane system. Only one proposal is permitted per individual. A proposal consists of many parts, requiring input from the fellowship candidate, the sponsoring scientist(s), and references. Candidates are advised to begin the proposal well in advance of the deadline and to submit it as early as possible. FastLane procedures allow candidates to save partially completed proposals for future completion and submission. FastLane does not permit the submission of incomplete or late proposals.

Before starting a proposal in FastLane, a candidate must register as an independent Principal Investigator (PI). Postdoctoral fellowship candidates can find information regarding this process at <https://www.fastlane.nsf.gov/n1/N1IndvReg.html>. This means a candidate functions as his or her own institution, and a **proposal must be submitted in FastLane by the candidate**, not by the candidate's institutional Sponsored Research Office (SRO). This also means that the candidate serves as his or her own SRO for the purposes of any research administration functions in FastLane, using the same login and password.

Proposals should be developed in collaboration with the sponsoring scientist(s) and must include all of the following items in the order given below. If requirements described below differ from those in Chapter II of the *Grant Proposal Guide*, this solicitation takes precedence.

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Instructions for completing a *Postdoctoral Fellowship in Polar Regions Research* proposal are available from the [FastLane](#) homepage by clicking on the link for [Postdoctoral Fellowships and Other Programs](#). From this web location, fellowship candidates, sponsoring scientists, and authors of letters of reference may provide their components by following the links identified by their authorship status.

**A complete postdoctoral fellowship proposal consists of the following** (Note: *The entire proposal, with the exception of the letters of reference, must be submitted by the Fellowship candidate in FastLane*):

- NSF cover page (FastLane Form 1207);
- FastLane Application Form. (NOTE: Under References, you must include the names and contact information for each person who will be submitting a letter of reference on your behalf);
- Information about Principal Investigators/Project Directors (FastLane Form 1225). This form will be generated automatically by FastLane;
- Table of Contents (FastLane Form 1359). This form will be generated automatically by FastLane;
- Project Summary, which provides for an abstract up to 250 words describing the candidate's research and training plan, and explicitly addresses the NSF merit criteria of intellectual merit and broader impact of the proposed work;
- Project Description, **not to exceed 10 single-spaced pages**, which must include the following components of the candidate's research and training plan:
  - a description of research objectives, methods, and significance;
  - a description of training objectives and a personal statement of career goals;
  - a statement of the relationship of the proposed research and training plan to the candidate's doctoral thesis and training;
  - an explanation of how the described fellowship activities will enhance the candidate's skill development and achievement of career goals;
  - a description of the broader impacts of the proposed program activities. For examples of activities that are likely to have broader impacts, see <http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf>;
  - justification for the proposed duration of the fellowship, including a work plan and a timeline for research and other activities. These must demonstrate the candidate's ability to complete the project during the fellowship tenure;
  - justification for the choice of sponsoring scientist(s) and host organization(s), including identification of collaborating scientist(s) and mentor(s), the relation of the proposed work to current research and activities at the host organization(s), a description of available facilities and resources, and if applicable, justification for continuing at the current institution and a statement of the relationship of proposed research to ongoing research;
  - a statement of how components such as fieldwork, teaching, undergraduate mentoring, industry collaborations, or outreach will be performed during the tenure of the fellowship;
  - explicit justification for any international travel that is included in the budget; and,
  - identification of a lead sponsor and a primary host organization that will receive the institutional allowance, if there are multiple sponsoring scientists and/or research/training sites.
- References Cited (a complete list of references to source materials used or cited in preparing the Project Description);
- A two-page Curriculum Vitae containing a list of up to five relevant publications with full title and complete references;
- Budget. Instructions on completing the FastLane budget forms are provided below. Note that a project budget justification of no more than 2 pages should be uploaded in FastLane as well. It should account for the proposed duration of the fellowship and document and justify the estimated costs as organized into the budget components described in section III; and
- A *single* statement by the sponsoring scientist(s), not to exceed 4 single-spaced pages (uploaded as a **supplemental document**) that includes:
  - an explanation of how the candidate's research and training plan fits into the current program(s) of the sponsor(s) and host organization(s);
  - a mentoring plan to develop the candidate's skills and future independent professional career. This mentoring plan can include activities by the mentor, as well as institutional resources (e.g. career centers, postdoctoral support offices, and local outreach programs and opportunities) available to enhance the candidate's professional development. It is recommended that the candidate consult with the mentoring scientist on the mentoring plan and continue to update the plan through the course of the fellowship. Resources that may be helpful in defining a mentoring plan include [Sigma Xi Post Doc Survey](#) and [Enhancing the Postdoctoral Experience for Scientists and Engineers: A Guide for Postdoctoral Scholars, Advisers, Institutions, Funding Organizations, and Disciplinary Societies \(2000\)](#);
  - a descriptive list of personnel with whom the fellowship candidate would work and collaborate; and
  - an explanation of the benefits of any international travel that the Fellow plans to conduct during the fellowship

**Regardless of the number of sponsors and/or research and training sites proposed, the fellowship candidate must submit a single sponsoring-scientist statement. If more than one sponsor or site is proposed, the sponsoring-scientist statement must integrate information from all sponsors and about all locations.**

- For *each* sponsoring scientist, a [Biographical Sketch](#), limited to 2 pages and uploaded in supplemental documents, as outlined in the NSF PAPP at [http://www.nsf.gov/publications/pub\\_summ.jsp](http://www.nsf.gov/publications/pub_summ.jsp)

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[ods\\_key=papp](#). Along with the information and format requested in the GPG, each biographical sketch must also contain a list of the sponsor's previous trainees (graduate and postdoctoral students) over the last five years.

- Supplementary fieldwork documentation for those requesting arctic or antarctic fieldwork, uploaded as supplemental documents. For instructions on the required documentation, see "Instructions for proposing fieldwork in polar regions" section below.

Candidates joining the field expedition of a scientist who is not one of the designated host scientists must include a letter of support from the principal investigator of that expedition. The letter of support should be part of supplemental documents.

- **Three letters of reference, submitted directly to FastLane by individuals with knowledge of the candidate's abilities.** The Fellowship candidate must identify the individuals who agree to submit letters of reference using FastLane. *One of these individuals must be the candidate's doctoral advisor.* For more information, see the "Letters of reference" section below.

### Instructions for Fastlane budget forms

The Fellowship budget components described in Section III should be entered in the Fastlane budget forms as follows:

- Note that each proposed year of the fellowship should be entered separately.
- The annual stipend should be entered on line A.
- The health insurance allowance should be entered on line C (Fringe Benefits).
- The annual research allowance, not to exceed \$11,000 per year, should be delineated as appropriate into the E (Travel) and G (Other Direct Costs) categories and subcategories, and the breakdown described in the Budget Justification.
- Those portions of fieldwork support that are to be awarded directly to the Fellow (see below) should be included in sections E (Travel) and G (Other Direct Costs) as appropriate, and they should be separately described and justified as detailed elsewhere in these instructions. Support for field assistants should be included in Line G.6. (Other Direct Costs: Other).
- The host institution allowance should be included in Line G.6. (Other Direct Costs: Other).

### Letters of reference

**Letters of reference are required from three individuals**, including the doctoral advisor, who can provide personal knowledge of the candidate's abilities and potential for career advancement. References should comment specifically on the candidate's ability to pursue and benefit from the proposed activities in the research and training plan.

The candidate will assign passwords to the letter-of-reference writers within FastLane as part of proposal preparation.

The letter-of-reference writer's last name, the temporary proposal number, and the password are used to provide secure access to FastLane programs for preparing and submitting the letters of reference. Reference writers change the provided password upon accessing FastLane to submit their letters. To submit references in FastLane, the writer

- fills out and saves the rating (**Step One**);
- uploads the letter of reference (**Step Two**); and then
- submits the completed reference (rating sheet and letter of reference) (**Step Three**).

Letters of reference are due at the same time as the fellowship proposal. ***It is the responsibility of the candidate to ensure the letters are submitted on time.*** The status of letter submission can be checked at any time using the FastLane proposal preparation function.

### Instructions for proposing fieldwork in polar regions

If the candidate's research and training plan proposes fieldwork in the Arctic and/or in Antarctica, the fieldwork must be described in the project description in sufficient detail (e.g., approximate dates of fieldwork, locations, types of collections to be made, laboratory analysis to be performed) for external reviewers to fully assess the candidate's research and training plan.

Field assistants may be requested for arctic or antarctic fieldwork *only* if necessary for field safety. Such requests must be justified in the fieldwork description and in the budget.

### Proposals with antarctic fieldwork

With appropriate justification, POLAR through the U.S. Antarctic Program will support antarctic fieldwork proposed by postdoctoral Fellows. Support in Antarctica is managed by POLAR's Antarctic Infrastructure and Logistics Section. Generally, fieldwork should be accomplished by the Fellow and, if needed, a field assistant, but the work may be associated with an existing field program of the sponsoring scientist(s).

Fellowship candidates may request antarctic fieldwork

- with a sponsoring U.S. scientist who has an existing NSF award;
- with a sponsoring U.S. scientist who has submitted a new research proposal (the fellowship candidate's proposal will be considered under separate merit review and the fellowship candidate must be aware that there is no guarantee that the sponsoring scientist's proposal will be funded); and/or
- by planning fieldwork that can be accomplished by the Fellow and a field assistant at or near a U.S. Antarctic Program research station or an established remote field site or on an antarctic research vessel. This category of fieldwork is hereafter referred to as "stand-alone" fieldwork.

If the designated host scientist is not the principal investigator for the fieldwork project, fellowship candidates must include a letter of support from the principal investigator of the fieldwork program.

**Costs of antarctic field support.** Proposed fieldwork must be described and justified in the project description. In addition, funds to cover medical and dental screening (not to exceed \$2,000/person), per diem expenses for travel to and from Antarctica (not to exceed \$1,000/person), incidental field expenses, and, if necessary, a field assistant must be included in the budget request. The U.S. Antarctic Program separately funds operational support in Antarctica (including airline tickets from the United States), and so these fieldwork costs are not to be included in the fellowship proposal.

**Fieldwork synopsis.** Fellowship candidates proposing antarctic fieldwork must also **submit a supplemental document**, not to



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exceed 2 single-spaced pages, that summarizes the major field support requirements. Operational support requirements should be developed in collaboration with the sponsoring scientist(s) and should offer sufficient detail for OPP program staff to determine the scope of the required field support and the potential environmental considerations that may accompany the proposed activities. Operational Requirements Worksheets (ORW) described in the [Antarctic Research solicitation](#) are NOT required for fieldwork proposed by postdoctoral Fellows.

For more information regarding budget, facilities, logistics, operational support, environmental protection, and medical and dental standards, see the [Antarctic Research solicitation](#). Candidates are encouraged to contact POLAR staff if more information is required to determine the operational feasibility of a prospective field plan.

Candidates should include the following in their antarctic fieldwork synopses:

- Details such as: number of deployments, field sites, environmental impacts, sample return (be aware that permits may be required), local support (e.g. mountaineer, dive support, lab space, air support), local equipment and materials.
- If joining a host scientist's field party, a description of operational requirements for the postdoctoral fieldwork that are *in addition* to those already designated for the field program, e.g., helicopter hours, equipment, lab space. Any additional environmental considerations must also be described in detail. If awarded, it is the responsibility of the Fellow to ensure these logistical requirements are understood and included in the field program by the host scientist.
- If requesting a field assistant, a description of the safety requirements that justify an assistant being added to the program. Note that a field assistant who is needed only intermittently may be arranged for within existing support personnel who are deployed during the Fellow's field season. However, support for a field assistant who will be dedicated to the project must be included in the Postdoctoral Fellowship proposal budget. A list of experienced mountaineers is available through the McMurdo Field Safety Training Program.

Antarctic fieldwork proposed for the season immediately following the fellowship proposal deadline is discouraged. Most operational support for the next season will already be allocated at the time fellowship award decisions are made, and additions to the schedule are usually not feasible.

### Proposals with arctic fieldwork

**Costs of field support.** Support of arctic fieldwork is available to postdoctoral Fellows through the [Arctic Research Support and Logistics](#) (RSL) program. Candidates proposing arctic fieldwork should outline the field plan in the proposal body but are required to include a 1-2 page document describing the field plan including schedule, field site locations, transportation and other requirements, and the estimated costs of the field work. The 1-2 page scoping document should be uploaded as a supplemental document in FastLane. Candidates are encouraged to contact the arctic logistics contractor CH2M Hill Polar Services (CPS), who can develop this scoping document or assist candidates providing their own logistics. Contacts and relevant information about field research are available on the CPS website (<http://www.polar.ch2m.com/>). If a field assistant is requested, a description of the logistical and/or safety requirements that justify the need for additional personnel must be included in the budget justification. Note that travel to and from field sites in the Arctic should be budgeted separately from in-field logistics.

For more information regarding the Arctic RSL program, see the [Arctic Research Opportunities](#) program solicitation, [NSF 10-597](#), and the [RSL web site](#). Recommendations regarding arctic fieldwork and additional information resources, including online resources for logistics providers, are provided in these documents, which will help candidates define their proposed fieldwork in collaboration with their sponsoring scientists.

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## TRAVEL GRANT PROPOSAL INSTRUCTIONS

Individuals who meet the eligibility requirements for a Postdoctoral Fellowship in Polar Regions Research may apply for a grant to support travel and per diem expenses incurred during visits to the host organization(s) of one or two prospective sponsoring scientists. Travel grants are awarded directly to the individual and may not exceed \$3,000 per recipient. Indirect costs are not allowed.

Travel grants and fellowships are awarded independently. The awarding of a travel grant provides no assurance of a fellowship. Travel grant proposals are optional; if a sponsoring scientist has already been selected, a candidate may apply directly for a fellowship without applying for a travel grant.

Travel grant proposals may be submitted at any time, provided they allow ample time for travel award processing, travel, and proposal preparation. Because of these time constraints, submission of the travel grant proposal is strongly encouraged at least three months before the Fellowship deadline.

In order to submit a travel grant proposal, a candidate must be registered in FastLane as an independent Principal Investigator. Candidates can find information regarding this process in FastLane at <https://www.fastlane.nsf.gov/n1/N1IndvReg.html>. The candidate serves as his or her own institution, and **the proposal must be submitted in FastLane by the candidate**, not by the candidate's institutional Sponsored Research Office (SRO). The candidate therefore serves as his or her own SRO for the purposes of any research administration functions in FastLane, using the same login and password.

**A complete travel grant application must include all of the following items in the order given below. All but the letter of reference will be submitted by the travel grant candidate in FastLane**

- Cover page (NSF Standard FastLane Form 1207).
- An abbreviated Curriculum Vitae, limited to 2 pages, and a list of publications with full title and complete references.
- Project Summary, no more than 100 words, that summarizes the travel grant request.
- Project Description, which includes both (1) a personal statement (limited to 2 single-spaced pages) describing the candidate's career goals and the rationale for selecting the proposed sponsoring scientist(s) and host organization(s) and (2) a travel plan that includes an itinerary of proposed travel dates and the purpose of each trip.
- Budget, entered using the standard budget form in FastLane. The entire anticipated amount should be entered in line E.1. (Domestic Travel). Travel grants may not exceed \$3,000. Travel grant awardees will not be reimbursed for actual costs post-travel, but will receive the proposed budget amount.
- A statement, limited to two single-spaced pages, from *each* prospective sponsoring scientist at the proposed host organization(s) that indicates agreement with the travel plan and support for the candidate's potential affiliation with the host organization as a postdoctoral Fellow. Upload these statements as supplemental documents in FastLane.
- **One letter of reference, submitted directly to FastLane by an individual**, preferably the doctoral advisor, who can

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provide personal knowledge of the candidate's abilities and potential for career advancement. The candidate assigns a password to the letter-of-reference writer as part of preparing the proposal.

The letter also may comment specifically on the candidate's ability to benefit from the proposed travel and the prospective affiliation(s) with the sponsoring scientist(s) and host organization(s) to be visited.

The temporary proposal number and a password are used to provide secure access to FastLane programs for preparing and submitting the letter of reference. Reference writers change the provided password upon accessing FastLane to submit their letters.

Proposers are reminded to identify the program solicitation number (NSF 09-612) 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

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**Cost Sharing:** Inclusion of voluntary committed cost sharing is prohibited

**Indirect Cost (F&A) Limitations:** Indirect costs are not allowed in either fellowships or travel grants. Fellowships provide an institutional allowance of \$5,000 as partial reimbursement of direct and indirect costs.

**Other Budgetary Limitations:**

Fellowship awards are limited to \$75,000 annually for up to three years, except for proposals requiring fieldwork. Travel grants are limited to \$3,000 per recipient.

Funding, in addition to the annual \$75,000 fellowship award, is available for logistical and operational support of field research in polar regions. The structure of the award component for fieldwork differs between the Arctic and the Antarctic. Please see Section V of this solicitation ("Instructions for proposing fieldwork in polar regions") for details related to fieldwork in the research and training plan of a postdoctoral fellowship.

### C. Due Dates

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

December 28, 2009

Fellowship Proposal Deadline

October 18, 2010

Fellowship Proposal Deadline

October 18, 2011

Fellowship Proposal Deadline

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

Proposals Accepted Anytime

Travel Grant Proposals -- Submission at least 3 months before the Fellowship deadline is encouraged

Allow ample time for processing, travel, and proposal preparation before the Fellowship deadline.

Travel grant proposal review and recommendation for award are expected to occur within two months of submission to enable timely travel. Earlier submission of travel grant proposals, with respect to the proposed travel dates and the fellowship proposal deadlines, is strongly recommended.

### D. FastLane Requirements

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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](mailto: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

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Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. 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 either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with 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

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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. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in the GPG as [Exhibit III-1](#).

A comprehensive description of the Foundation's merit review process is available on the NSF website at: [http://nsf.gov/bfa/dias/policy/merit\\_review/](http://nsf.gov/bfa/dias/policy/merit_review/).

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in [Empowering the Nation Through Discovery and Innovation: NSF Strategic Plan for Fiscal Years \(FY\) 2011-2016](#). These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the core strategies in support of NSF's mission 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 variety of learning perspectives.

Another core strategy in support of NSF's mission is broadening opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which 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.

### A. Merit Review Principles and Criteria

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The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

#### 1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

#### 2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. ([GPG Chapter II.C.2.d.i](#) contains additional information for use by proposers in development of the Project Description section of the proposal.) Reviewers are strongly encouraged to review the criteria, including [GPG Chapter II.C.2.d.i](#), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
  - a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?

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5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

### Additional Solicitation Specific Review Criteria

In addition to the above criteria, the following factors will be used in the evaluation process for Postdoctoral Fellowships:

- Candidate's abilities and accomplishments and his/her potential for continued professional growth as evidenced by the Curriculum Vitae and reference letters;
- Potential of the proposed research and training plan to impact the candidate's career development;
- Suitability and commitment of the proposed sponsoring scientist(s) and host organization(s), including availability of mentors and facilities and suitability of proposed mentoring plan, to promote the research and training plan of the candidate;
- Prospective benefits to the activities of the host organization(s); and
- Prospective contributions from the candidate's proposed activities to the stated fellowship program goals.

## B. Review and Selection Process

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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

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### A. Notification of the Award

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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

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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](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](mailto: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](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag).

**Special Award Conditions:**

Candidates selected to receive fellowships will be contacted by NSF and asked to provide additional information, such as completing acceptance forms and certificates, before beginning their fellowships. Successful candidates who have not completed their doctoral degrees at the time of application must demonstrate that they are on schedule to complete the Ph.D. requirements within one year of the Fellowship proposal deadline and must provide certifications of the receipt of the Ph.D. before receiving their fellowship awards.

Normally, fellowships will be held at the host organization(s) specified in the proposal for the duration of the fellowship. However, under certain circumstances and with suitable justification, fellowships may be transferred to a new organization upon approval by NSF.

A Fellow is permitted to receive supplementary funding from his or her host organizations; however, any activities performed must be justified as part of the Fellow's research and training plan. No other remuneration from any source may be accepted during the fellowship period without permission of the program officer.

National Science Foundation policy requires submission of data, derived data products, samples, physical collections, and other supported materials to national data centers and other specified repositories. Investigators are expected to share these resources with other researchers at no more than incremental cost and within a reasonable time. Investigators should use national and international standards to the greatest extent possible for collection, processing, and communication of NSF sponsored data sets.

All antarctic and arctic awards must adhere to the appropriate data submission policies. For further details on this policy, please see Guidelines and Award Conditions for Scientific Data on the POLAR web site ([http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=opp991](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=opp991)).

Candidates are encouraged to discuss institutional policies on intellectual property rights with the host organization(s) before submitting an application. Candidates should also discuss the policies of the sponsoring scientist(s) regarding which materials and projects will remain with the host organization(s) and which can be released to the Fellow at the conclusion of the fellowship.

## C. Reporting Requirements

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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](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag).

Reports, authored by the Fellow, are expected to follow comprehensive reviews by the Fellow and the sponsoring scientist(s) of the status and progress of the Fellow's research and training plan and of the Fellow's career and skill development. Reports should include:

- status and progress of the research and training plan;
- a list of authored papers;
- a list of conferences, workshops and professional society meetings attended with notations for presented talks and posters, panel participation or other activities;
- acquired support from research grants or contracts;
- honors and awards; and
- other synergistic and professional activities.

## VIII. AGENCY CONTACTS

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*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:

- (Virginia) C. Carter, telephone: (703) 292-4651, email: [vccarter@nsf.gov](mailto:vccarter@nsf.gov)

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: [fastlane@nsf.gov](mailto:fastlane@nsf.gov).
- We encourage all fellowship questions be sent to [OPPfellow@nsf.gov](mailto:OPPfellow@nsf.gov).

## IX. OTHER INFORMATION

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The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information),

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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>.

### Related Programs:

#### Research projects funded by the Division of Polar Programs

The fellowships are intended in part to develop scientists capable of competing successfully for NSF-funded polar research project awards. OPP's disciplinary, multidisciplinary, and interdisciplinary programs emphasize the uniqueness of polar regions for scientific study and their importance to global systems. Research support encompasses the life, physical, and social sciences. OPP encourages the application of emerging scientific knowledge and techniques to the study of polar regions.

The NSF documents [Arctic Research Opportunities](#) and [Antarctic Research](#) describe these programs.

To stay aware of some developments in polar science, view OPP's list of [Workshops relevant to NSF support of polar research](#). For [OPP-funded awards](#) or for NSF-funded awards related to your field, search the Foundation's [awards database](#).

#### Other postdoctoral fellowship opportunities at NSF

NSF has a number of opportunities for independent postdoctoral fellowships that provide salary and research support for independent research programs conducted at a host institution either in the U.S. or abroad. These programs are generally located within the individual disciplinary divisions at NSF, although some are also cross-disciplinary. An up-to-date list of available programs can be found in FastLane's "Postdoctoral Fellowships and Other Programs" section at <https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>.

## 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.

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