

Discovery Corps Fellowships (DCF)

Postdoctoral Fellowships and Senior Fellowships

Program Solicitation

NSF 04-591

Replaces Document NSF 03-596



National Science Foundation

Directorate for Mathematical and Physical Sciences

Division of Chemistry

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

December 14, 2004

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Discovery Corps Fellowships (DCF)
Postdoctoral Fellowships and Senior Fellowships

Synopsis of Program:

The Discovery Corps Fellowship Program is a pilot program seeking new postdoctoral and professional development models that combine research expertise with professional service. Discovery Corps Fellows leverage their research expertise through projects that address areas of national need. Their projects enhance research capacity and infrastructure and contribute to workforce development and job creation. For this pilot program, successful Fellows will have research expertise in areas supported by the NSF Division of Chemistry. The Discovery Corps Fellowship Program comprises two categories of awards: recent doctoral recipients serve as Discovery Corps Postdoctoral Fellows; and mid-career professionals serve as Discovery Corps Senior Fellows.

Cognizant Program Officer(s):

- Katharine J. Covert, Program Director, Directorate for Mathematical & Physical Sciences, Division of Chemistry, 1055 S, telephone: (703) 292-4950, fax: (703) 292-9037, email: kcovert@nsf.gov

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

- 47.049 --- Mathematical and Physical Sciences

Eligibility Information

- **Organization Limit:**

Fellowship proposals (applications) may be submitted by a US university, college, or non-profit, non-academic organization with the prospective Fellow as the Principal Investigator (PI).

Fellowship proposals (applications) may also be submitted by individuals who are unaffiliated or who are affiliated with for-profit organizations, state or local governments or federal agencies. When applying as independent/unaffiliated individuals, Fellow applicants must register with the FastLane system prior to submitting their application and must affiliate with a US university, college, or non-profit, non-academic organization to administer the Fellowship award.

- **PI Eligibility Limit:**

The PI on a Discovery Corps proposal (application) must be the prospective Fellow. No co-PIs are allowed, although other research personnel are permitted.

At the time of award, a Fellow must hold a doctorate in the chemical sciences and must be a US citizen or permanent resident.

- For a Postdoctoral Fellowship, the individual must have received their doctorate within the last two years.
- For Senior Fellowships, the individual must have at least ten years of professional experience beyond doctoral and postdoctoral training.

Exceptions to these time-related restrictions can be made for extenuating personal circumstances, such as a career interruption due to family responsibilities, but must be approved by a cognizant program officer prior to submission of the proposal.

No individual may submit more than one proposal per Discovery Corps Fellowship competition.

- **Limit on Number of Proposals:** None Specified.

Award Information

- **Anticipated Type of Award:** Fellowship
- **Estimated Number of Awards:** 15 : up to 10 Postdoctoral Fellowships (2 years) and up to 5 Senior Fellowships (1 year)
- **Anticipated Funding Amount:** \$2,000,000 (approximately \$1 million for Postdoctoral Fellowships and \$1 million for Senior Fellowships), pending availability of funds and quality of proposals

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Full Proposal Preparation Instructions:** This solicitation contains information that deviates from the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.
- **Indirect Cost (F&A) Limitations:**

In lieu of indirect costs, an institutional allowance of \$10,000 per year should be requested on the proposal budget, line I.

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

C. Due Dates

- **Full Proposal Deadline Date(s)** (due by 5 p.m. proposer's local time):
December 14, 2004

Proposal Review Information

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

Award Administration Information

- **Award Conditions:** 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

The Division of Chemistry in the Directorate for Mathematical and Physical Sciences announces a pilot program of Discovery Corps Fellowships to support new postdoctoral and professional development models that combine research expertise with professional service. Proposals (applications) from prospective Discovery Corps Fellows (applicants) will describe plans to leverage their research expertise through projects that address areas of national need. Their projects will enhance research capacity and infrastructure and contribute to workforce development and job creation. For this pilot program, successful applicants will have research expertise in areas supported by the NSF Division of Chemistry. The Discovery Corps Fellowship Program comprises two categories of awards: recent doctoral recipients serve as Discovery Corps Postdoctoral Fellows; and mid-career professionals serve as Discovery Corps Senior Fellows.

The concept underpinning Discovery Corps Fellowships is to explore new models for addressing national needs that leverage the research expertise of an individual with existing and new structures of professional service. Existing structures with which a Discovery Corps Fellow might affiliate to promote job creation include NSF Science and Technology Centers (STCs), Engineering Research Centers (ERCs), Partnerships for Innovation (PFIs), Small Business Technology Transfer Programs (STTRs), Industry/University Cooperative Research Centers (I/UCRCs), and Materials Research Science and Engineering Centers (MRSECs), all of which support collaborations with industry. Workforce development and the integration of research and education might be accomplished by affiliating with Undergraduate Research Centers (URCs), Centers for Learning and Teaching (CLTs), Math and Science Partnership Programs (MSPs), Graduate Teaching Fellows in K-12 Education (GK-12) or MPS Internships in Public Science Education (IPSE). NSF-supported centers that build workforce capacity and engage underrepresented groups include the Centers of Research Excellence in Science and Technology (CREST), Historically Black Colleges and Universities Undergraduate Program (HBCU-UP), Tribal Colleges and Universities Program (TCUP) and ADVANCE Institutional Transformation Awards. International Materials Institutes (IMIs), STCs and other centers provide opportunities for international collaboration. NSF Publication Numbers and links to these and other NSF programs with which applicants may explore potential affiliations appear at the end of this announcement; NSF awards may be searched at <http://www.nsf.gov/awardsearch/index.jsp>. Applicants are also encouraged to consider completely new structures that would enable them to address national needs by combining their research expertise with professional service.

Documentation articulating the existing resources (for example, office and lab space, access to facilities, administrative assistance) to be provided to the Fellow by the host organization is part of the application package. Applicants are urged, therefore, to contact their prospective host organization early in the planning process.

More information about the Discovery Corps Fellowship Program, including abstracts of the current Discovery Corps Fellowships, can be found on the Discovery Corps Program webpage. To access this page, go to the NSF Division of Chemistry webpage at <http://www.nsf.gov/mps/divisions/che/>, choose "About CHE", then CHE Programs and Facilities.

Discovery Corps Postdoctoral Fellowships

Postdoctoral scholars contribute substantially to the vitality of the research enterprise. With their rigorous doctoral training, postdoctoral scholars are well prepared to make significant contributions to research projects, and this experience serves them well in their transition to an independent professional position. Many outstanding postdoctoral research projects will continue to be supported by the Division of Chemistry through individual investigator and collaborative awards, wherein the postdoctoral scholar typically works with one or a few PIs in a research group that often also includes graduate and undergraduate students. In contrast, Discovery Corps Postdoctoral Fellowships are intended to support the development of new postdoctoral models that make different types of experiences and skills accessible to the Fellow. These two-year Fellowships may provide valuable perspectives for traditional careers in the chemical sciences, or lead to new independent career opportunities. A workshop was held at NSF that considered alternative models and partnerships for postdoctoral training. The workshop report, "Postdoctoral Appointments: Roles and Opportunities. An NSF Workshop," discusses the concept of establishing new postdoctoral models like the Discovery Corps Postdoctoral Fellowships. The workshop report

can be found at <http://www.merrimackllc.com/2003/postdoc-workshop.html>.

Discovery Corps Postdoctoral Fellows who begin a tenure-track faculty position within four months of completing their Fellowship are eligible to apply for a \$100,000 Discovery Corps Faculty Development Award to augment their start-up package and enable the individual to establish an ambitious program that fully integrates research, education and professional service. Additional information about the Discovery Corps Faculty Development Award will be provided to the Discovery Corps Postdoctoral Fellows when they accept their Fellowship.

Discovery Corps Senior Fellowships

The Discovery Corps Fellowship Program can be naturally extended to mid-career chemical scientists, who possess substantial research experience. Traditionally, mid-career researchers in industrial, government, and academic positions have the opportunity for sabbaticals that provide a mechanism for establishing new research directions. Such individuals could use the Discovery Corps Fellowship Program to provide support for a one-year, professional service-oriented project that addresses national needs by drawing upon their substantial research experience and leads to new opportunities for themselves and their project partners.

II. PROGRAM DESCRIPTION

The Discovery Corps Fellowship Program is a pilot program designed to support new models for combining research expertise with professional service. Recent doctoral recipients are eligible for Discovery Corps Postdoctoral Fellowship awards, and mid-career professionals are eligible for Discovery Corps Senior Fellowship awards. This pilot program is focused on individuals with research expertise in areas supported by the NSF Division of Chemistry.

The program aims to create national models in the chemical sciences and allied disciplines for:

- Promoting professional development; and
- Addressing national needs by enhancing national research capacity and infrastructure and contributing to workforce and economic development.

Individually, the Discovery Corps Fellows will define projects that leverage their technical expertise. As a group, they will identify new strategies for national investment that can lead to such outcomes as new engines for economic development; a stronger, more diverse and more globally-engaged workforce; and enhanced research capacity and infrastructure in areas of national need. The emphasis on discovery and professional service will challenge the imagination and creativity of chemical scientists to develop new paradigms for postdoctoral and mid-career projects that can benefit the individual and the nation.

In proposing their Discovery Corps Fellowship projects, applicants need to demonstrate how their research expertise and plan for professional service will address national needs. Discovery Corps Fellows are required to affiliate with one or more host organizations that provide support and oversight for their activities. They may also collaborate with a center, institute, or team that has shared goals. Examples include the following, which are meant to be illustrative, not exhaustive:

- **A project that fosters economic or workforce development.** A Discovery Corps Fellow collaborates with an industrial outreach program sponsored by NSF, such as PFI, STTR, or I/UCRC, or with a center like an STC or ERC to assist industries in developing new technologies grounded in the chemical sciences.
- **A project that encourages a large, diverse group of students to careers in science and technology.** A Discovery Corps Fellow collaborates with a URC or CREST and provides leadership for teams of staff and undergraduates engaged in large-scale collaborative research projects; or partners with a CLT to enhance the quality of secondary school chemistry laboratories.
- **A project that is of broad service to the national chemical sciences community.** A Discovery Corps Fellow develops cyberinfrastructure tools for the chemical sciences, thereby promoting applications of cyber-enabled chemistry. Examples include: development of open-source computational codes that take advantage of grid

technologies; networking of analytical instrumentation to provide remote access for educational/home/ commercial use; and establishment of digital libraries and repositories for sharing of chemical data.

- **A project that strengthens international partnerships and leads to a more globally engaged workforce.** A Discovery Corps Fellow develops the research agenda and infrastructure for a future international Research Experiences for Undergraduates (REU) chemistry site; or assists with analytical tools that enable scientists to address important scientific and real-world problems.

Professional Development

In collaboration with their host organization(s), an applicant for a Discovery Corps Fellowship needs to provide a detailed description of how he or she would benefit from the experience as a Fellow. This description should specify the technical and professional skills that would be developed. The applicant should describe, insofar as possible, plans beyond the Fellowship period and how the Fellowship project would promote those objectives.

Letters from the host organization(s) should be included as supplementary documentation. These letters should describe what resources and facilities will be available to the Fellow and the nature of oversight that will be provided. Examples of resources include office and laboratory space, access to facilities, computers, instrumentation, and administrative assistance. Oversight might be provided by an administrator or by a committee.

Impact

A Discovery Corps Fellow applicant should describe the anticipated effect of the Fellowship activities. Specifically, how does the project address a national need? How does it strengthen national research capacity and infrastructure or build workforce and economic development? Applicants are asked to present ideas for the evaluation and dissemination of their projects in their proposal (application). Fellows will be expected to participate in an NSF-supported external evaluation of the Discovery Corps Fellowship program.

Summary

This Discovery Corps Fellowship pilot program will develop models for professional development for postdoctoral and mid-career chemical scientists. There is significant intellectual challenge in the design of such models, particularly in creating project designs that combine research expertise with high-impact professional service that addresses national needs. Effective models have the potential for broader impacts through their inclusiveness, evaluation, dissemination, and replication or adaptation on a larger scale.

III. ELIGIBILITY INFORMATION

Fellowship proposals (applications) may be submitted by a US university, college, or non-profit, non-academic organization with the prospective Fellow as the Principal Investigator.

Fellowship proposals (applications) may also be submitted by individuals who are unaffiliated or who are affiliated with for-profit organizations, state or local governments or federal agencies. When applying as independent/unaffiliated individuals, Fellow applicants must register with the FastLane system prior to submitting their application and must affiliate with a US university, college, or non-profit, non-academic organization to administer the Fellowship award.

The PI on a Discovery Corps proposal (application) must be the prospective Fellow. No co-PIs are allowed, although other research personnel are permitted.

At the time of award, Fellows must hold a doctorate in the chemical sciences and must be a US citizen or permanent resident.

- For Postdoctoral Fellowships, the individual must be within two years of having received their doctorate.
- For Senior Fellowships, the individual must have at least ten years of professional experience beyond doctoral and postdoctoral training.

Exceptions to these time-related restrictions can be made for extenuating personal circumstances, such as a career interruption due to family responsibilities, but must be approved by a cognizant program officer prior to submission of the proposal.

No individual may submit more than one proposal per Discovery Corps Fellowship competition.

IV. AWARD INFORMATION

The NSF Division of Chemistry expects to make up to 10 two-year Postdoctoral Fellowships and up to 5 one-year Senior Fellowships. The anticipated award date is August 1, 2005. Anticipated funding is \$2 million in FY05: up to \$1 million for Discovery Corps Postdoctoral Fellowships and up to \$1 million for Discovery Corps Senior Fellowships.

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

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Instructions:

Proposals submitted in response to this program announcement/solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF *Grant Proposal Guide* (GPG). The complete text of the GPG is available electronically on the NSF Website at: <http://www.nsf.gov/cgi-bin/getpub?gpg>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

The following instructions supplement the Grant Proposal Guide:

A Discovery Corps Fellowship proposal provides information on the project, its impact on the individual, on the organizations with which he or she will work, and on the nation. There are many potential types of projects and many possible desirable outcomes. For this pilot program, proposers should provide a realistic balance that allows bold experiments exploring the synergy of research expertise and professional service.

In developing proposals, Fellow applicants should recognize the importance of individual, organizational, and national objectives. Individual objectives are connected to opportunities for professional development. Organizational objectives allow proposers to discuss how their organizations will assist the project and benefit from it. National objectives are related to key issues like workforce and economic development.

Evaluation and dissemination plans should enable Fellow applicants to benchmark their progress and share their results with the broader community. Fellow applicants may wish to consult with evaluation experts when developing their evaluation plans.

A letter of cooperation from each organization with which the Fellow applicant will affiliate should be included as supplementary documentation. This letter should describe what organizational resources and facilities will be available to the Fellow and the oversight provided to the Fellow. Examples of resources include office and laboratory space, access to facilities, computers, and instrumentation, and administrative support. Oversight might be provided by an administrator or by a committee.

Individuals submitting Fellowship applications as independent/unaffiliated applicants must first register as an organization via NSF's FastLane system. Detailed instructions are available on the FastLane Web site <https://www.fastlane.nsf.gov/n1/N1IndvReg.html?isScientist=GO>.

Discovery Corps Postdoctoral Fellowships

The project description may be up to 15 pages long and include (in this order)

- up to 3 pages on the Fellow applicant's Accomplishments and Professional Development: What are the principal research, teaching and service accomplishments of the applicant to date? How will the project promote professional development for the applicant? What are the applicant's plans beyond the Fellowship and how will they be enhanced by this experience?
- up to 8 pages on the Project Elements: What is the nature of the project and how does it blend research expertise and professional service?
- up to 2 pages on Project Impact: How does the project address national needs, enhance research infrastructure and capacity, and/or contribute to workforce and/or economic development?
- up to 1 page on Evaluation and Dissemination: By what means will the project be evaluated and how will it be disseminated
- up to 1 page on Results of Prior Support (if a Fellow applicant has served as PI or co-PI on a NSF award in the past five years).

Discovery Corps Senior Fellowships

The Project Description may be up to 15 pages long and include a discussion of the applicant's accomplishments, leadership, experience and perspective that will be applied to this Fellowship project, the nature of the project and how it addresses Discovery Corps goals, project impact, assessment and dissemination. Results of Prior Support are required if the Fellow applicant has been a PI or co-PI on any NSF award in the past five years. The Results of Prior Support are limited to two pages in the Project Description.

Proposers are reminded to identify the program announcement/solicitation number (04-591) in the program announcement/solicitation block on the proposal Cover Sheet. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost Sharing:

Cost sharing is not required in proposals submitted under this Program Solicitation.

Indirect Cost (F&A) Limitations:

In lieu of indirect costs, an institutional allowance of \$10,000 per year should be requested on the proposal budget, line I.

Other Budgetary Limitations:

Annual salary for a Postdoctoral Fellowship is \$50,000. Salary for a Senior Fellowship is based on an applicant's current

salary, and can be prorated as appropriate for up to twelve months.

Budget Preparation Instructions:

The following information provides guidance for preparing the Discovery Corps Fellowship proposal (application) budget.

Discovery Corps Postdoctoral Fellowships

The Postdoctoral Fellowship is for two years, at approximately \$100,000 per year. The annual costs include \$50,000 salary for the Postdoctoral Fellow, an institutional allowance of \$10,000 per year in lieu of indirect costs entered on budget line I, and other costs (fringe benefits, travel, materials, etc.) required for the project. The proposal budget should include funds for attendance at professional meetings and an annual Discovery Corps Fellows meeting to be held in Arlington, VA.

Discovery Corps Senior Fellowships

The Senior Fellowship is up to \$200,000 for one year. The budget can include the Fellow's salary (up to 12 months, prorated based on an academic year salary if appropriate), an institutional allowance of \$10,000 per year in lieu of indirect costs entered on budget line I, and other costs (fringe benefits, travel, materials, etc.) required for the project. The travel budget should include funds for attendance at professional meetings and an annual Discovery Corps Fellows meeting to be held in Arlington, VA.

C. Due Dates

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

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

December 14, 2004

D. FastLane Requirements

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

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the [Grant Proposal Guide](#) for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Proposers are no longer required to provide a paper copy of the signed Proposal Cover Sheet to NSF. Further instructions regarding this process are available on the FastLane Website at: <http://www.fastlane.nsf.gov>

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority-serving institutions, or adjacent disciplines to that principally addressed in the proposal.

The National Science Board approved revised criteria for evaluating proposals at its meeting on March 28, 1997 ([NSB 97-72](#)). All NSF proposals are evaluated through use of the two merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

On July 8, 2002, the NSF Director issued [Important Notice 127](#), Implementation of new Grant Proposal Guide Requirements Related to the Broader Impacts Criterion. This Important Notice reinforces the importance of addressing both criteria in the preparation and review of all proposals submitted to NSF. NSF continues to strengthen its internal processes to ensure that both of the merit review criteria are addressed when making funding decisions.

In an effort to increase compliance with these requirements, the January 2002 issuance of the GPG incorporated revised proposal preparation guidelines relating to the development of the Project Summary and Project Description. Chapter II of the GPG specifies that Principal Investigators (PIs) must address both merit review criteria in separate statements within the one-page Project Summary. This chapter also reiterates that broader impacts resulting from the proposed project must be addressed in the Project Description and described as an integral part of the narrative.

Effective October 1, 2002, NSF will return without review proposals that do not separately address both merit review criteria within the Project Summary. It is believed that these changes to NSF proposal preparation and processing guidelines will more clearly articulate the importance of broader impacts to NSF-funded projects.

The two National Science Board approved merit review criteria are listed below (see the [Grant Proposal Guide](#) Chapter III.A for further information). The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which he/she is qualified to make judgments.

What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

NSF staff will give careful consideration to the following in making funding decisions:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the

programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

Additional Review Criteria:

Discovery Corps Postdoctoral Fellowships

- To what extent will the Postdoctoral Fellowship promote the professional development of the Fellow applicant?
- What impact will the project have on host organizations?
- In what ways will the project address national needs through professional service?

Discovery Corps Senior Fellowships

- To what extent will the Senior Fellowship leverage the leadership skills, research and educational experience and perspective of the Senior Fellow applicant?
- What impact will the project have on host organizations?
- In what ways will the project address national needs through professional service?

B. Review Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by Panel Review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

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

In most cases, proposers will be contacted by the Program Officer after his or her recommendation to award or decline funding has been approved by the Division Director. This informal notification is not a guarantee of an eventual award.

NSF is striving to be able to tell proposers whether their proposals have been declined or recommended for funding within six months. The time interval begins on the closing date of an announcement/solicitation, or the date of proposal receipt, whichever is later. The interval ends when the Division Director accepts the Program Officer's recommendation.

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

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

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

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (NSF-GC-1); * or Federal Demonstration Partnership (FDP) Terms and Conditions * and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/home/grants/grants_gac.htm. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at <http://www.nsf.gov/cgi-bin/getpub?gpm>. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Website at <http://www.gpo.gov>.

Special Award Conditions:

Discovery Corps Fellowship applicants will be notified by April 15, 2005 if they will be offered a Fellowship. The applicant must accept the Fellowship (via email to the cognizant program officer) or withdraw their application within 30 days of notification. Discovery Corps Fellowships must begin in August or September, 2005.

Unaffiliated applicants must affiliate with a host organization in order to receive the Fellowship. A Fellows Award will not be finalized until a host organization provides to NSF a revised cover sheet and budget for the proposed activity signed by an authorized organizational representative, and a statement from the Fellow's Department Head or equivalent endorsing the Fellow's proposed plan.

Fellowships are made to the organization on behalf of the Fellow. If the Fellow chooses to affiliate with another organization during the Fellowship and receives approval from the NSF Program Manager, the current awardee organization must allow

the Fellowship to be transferred.

Postdoctoral Fellows and Senior Fellows are expected to attend an annual Discovery Corps meeting to be held in Arlington, VA.

Fellows are expected to participate in an ongoing NSF-supported external review and evaluation of the Discovery Corps Fellowship Program.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Discovery Corps Fellowships will be closed on receipt of a Final Project Report (submitted through FastLane) and a fiscal report submitted by the awardee organization.

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for the PI and all Co-PIs. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project reporting system, available through FastLane, for preparation and submission of annual and final project reports. This system permits electronic submission and updating of project reports, including information on project participants (individual and organizational), activities and findings, publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding this program should be made to:

- Katharine J. Covert, Program Director, Directorate for Mathematical & Physical Sciences, Division of Chemistry, 1055 S, telephone: (703) 292-4950, fax: (703) 292-9037, email: kcovert@nsf.gov

For questions related to the use of FastLane, contact:

- Paul G. Spyropoulos, Computer Specialist, Directorate for Mathematical & Physical Sciences, Division of Chemistry, 1055 S, telephone: (703) 292-4968, fax: (703) 292-9037, email: pspyropo@nsf.gov

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at <http://www.nsf.gov/cgi-bin/getpub?gp>. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

Many NSF programs offer announcements or solicitations concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices. Any changes in NSF's fiscal year programs occurring after press time for the *Guide to Programs* will be announced in the NSF [E-Bulletin](#), which is updated

daily on the NSF Website at <http://www.nsf.gov/home/ebulletin>, and in individual program announcements/solicitations. Subscribers can also sign up for NSF's [Custom News Service](http://www.nsf.gov/home/cns/start.htm) (<http://www.nsf.gov/home/cns/start.htm>) to be notified of new funding opportunities that become available.

Related Programs:

- International Research Fellowship Program ([NSF 02-149](#))
- Louis Stokes Alliances for Minority Participation (LSAMP) Program ([NSF 03-520](#))
- Tribal Colleges and Universities Program ([NSF 03-592](#))
- Partnerships for Innovation ([NSF 04-556](#))
- Small Business Innovation Research and Small Business Technology Transfer Programs Phase I Solicitation FY-2004 ([NSF 04-551](#))
- Science of Learning Centers ([NSF 03-573](#))
- Centers For Learning and Teaching ([NSF 04-501](#))
- Industry/University Cooperative Research Centers Program ([NSF 01-116](#))
- Engineering Research Centers ([NSF 04-570](#))
- Materials Research Science and Engineering Centers ([NSF 04-580](#))
- Physics Frontier Centers ([NSF 01-112](#))
- Science and Technology Centers: Integrative Partnerships ([NSF 03-550](#))
- NSF GRADUATE TEACHING FELLOWS IN K-12 EDUCATION ([NSF 04-533](#))
- International Materials Institutes ([NSF 03-593](#))
- International Opportunities for Scientists and Engineers ([NSF 03-559](#))
- Research Experiences for Undergraduates ([NSF 04-584](#))
- Undergraduate Research Centers ([NSF 03-595](#))
- Centers of Research Excellence in Science and Technology (CREST) ([NSF 04-574](#))
- Research in Disabilities Education ([NSF 03-587](#))

Applicants may obtain information about awards under these programs by keyword searching on the NSF Awards Database <http://www.nsf.gov/awardsearch/index.jsp>. For example, searching on the term "Centers of Research Excellence in Science and Technology" will provide a listing of current and recent awards in this Program.

Discovery Corps Fellow applicants are strongly encouraged to contact a cognizant program officer as they begin to plan their application.

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Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the GPG Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

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

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

- **Location:** 4201 Wilson Blvd. Arlington, VA 22230

- **For General Information** (NSF Information Center): (703) 292-5111

- **TDD (for the hearing-impaired):** (703) 292-5090

- **To Order Publications or Forms:**

Send an e-mail to: pubs@nsf.gov
or telephone: (703) 292-7827

- **To Locate NSF Employees:** (703) 292-5111

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The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to applicant institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

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