Doctoral Dissertation Improvement Grants in the Directorate for Biological Sciences

Program Announcement

NSF 00-95 (REPLACES NSF 98-151)

DIRECTORATE FOR BIOLOGICAL SCIENCES
DIVISION OF ENVIRONMENTAL BIOLOGY
DIVISION OF INTEGRATIVE BIOLOGY AND NEUROSCIENCE

DEADLINE: Third Friday in November, Annually

NATIONAL SCIENCE FOUNDATION
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 Web Site 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) 292-7875
- **To Order Publications or Forms:**
  Send an e-mail to: pubs@nsf.gov
  or telephone: (301) 947-2722
- **To Locate NSF Employees:** (703) 292-5111
GENERAL INFORMATION

**Program Title:** Doctoral Dissertation Improvement Grants (DDIG) in the Directorate for Biological Sciences

**Synopsis of Program:**

The National Science Foundation awards Doctoral Dissertation Improvement Grants in selected areas of the biological sciences. These grants provide partial support of doctoral dissertation research in order to improve the overall quality of the research, to allow doctoral candidates to conduct research in specialized facilities or field settings away from the home campus, and to provide opportunities for greater diversity in collecting and creativity in analyzing data than would otherwise be possible using only locally available resources.

**Cognizant Program Officer:**

- Michael Willig, Program Director, Environmental Biology, 635, telephone: (703) 292-7198, e-mail: mwillig@nsf.gov.
- Stephen Vessey, Program Director, Integrative Biology and Neuroscience, 685, telephone: (703) 292-7875, e-mail: svessey@nsf.gov.

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

- 47.074 --- Biological Sciences

ELIGIBILITY INFORMATION

- **Organization Limit:** U.S. institutions that are eligible for awards from the National Science Foundation, including colleges, universities, and other nonprofit research institutions such as botanical gardens, marine and freshwater institutes, and natural history museums may submit proposals. The NSF encourages collaborations with scientists at foreign institutions; however, primary support for any foreign participants/activities must be secured through their own national sources.

- **PI Eligibility Limit:** A student must have advanced to candidacy for a Ph.D. degree to be eligible to submit a proposal.

- **Limit on Number of Proposals:** A student may submit only one proposal in a given year and may not submit a new proposal after receiving funding for a previous DDIG proposal.
AWARD INFORMATION

- **Anticipated Type of Award:** Standard Grant
- **Estimated Number of Awards:** 80-90 awards
- **Anticipated Funding Amount:** Approximately $800,000 annually contingent upon the availability of funds.

PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

**A. Proposal Preparation Guidelines**

- **Proposal Preparation Instructions:** Deviations From Standard Preparation Guidelines
  
  - The program contains deviations from the standard GPG proposal preparation guidelines. Please see the full program announcement for further information.

**B. Budgetary Information**

- **Cost Sharing Requirements:** Cost Sharing is not required
- **Indirect (F&A) limitations:** Not Applicable.
- **Other Budgetary Limitations:** $3,000 to $10,000 for 24-months. Please see the full program announcement for further information.

**C. Deadline/Target Dates**

- **Letter of Intent Deadline:** None
- **Preproposal Deadline:** None
- **Full Proposal Deadline:** Third Friday in November, annually

**D. FastLane Requirements**

- **FastLane Submission:** Full Proposal Required
- **Fast Lane Contact:**
  
  - For questions related to the use of FastLane contact the Directorate for Biological Sciences, Information and Automation Resources Unit on e-mail: biofl@nsf.gov.

PROPOSAL REVIEW INFORMATION

- **Merit Review Criteria:** National Science Board approved criteria apply.

AWARD ADMINISTRATION INFORMATION

- **Award Conditions:** Standard NSF award conditions apply.
- **Reporting Requirements:** Standard NSF Reporting Requirements apply.
TABLE OF CONTENTS

SUMMARY OF PROGRAM REQUIREMENTS
I. INTRODUCTION
II. PROGRAM DESCRIPTION
III. ELIGIBILITY INFORMATION
IV. AWARD INFORMATION
V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS
   A. Proposal Preparation Instructions
   B. Budgetary Information
   C. Deadline/Target Dates
   D. FastLane Requirements
VI. PROPOSAL REVIEW INFORMATION
   A. NSF Proposal Review Process
   B. Review Protocol and Associated Customer Service Standard
VII. AWARD ADMINISTRATION INFORMATION
   A. Notification of the Award
   B. Award Conditions
   C. Reporting Requirements
VIII. CONTACTS FOR ADDITIONAL INFORMATION
IX. OTHER PROGRAMS OF INTEREST
I. INTRODUCTION

The National Science Foundation awards Doctoral Dissertation Improvement Grants in selected areas of the biological sciences. These grants provide partial support of doctoral dissertation research in order to improve the overall quality of the research, to allow doctoral candidates to conduct research in specialized facilities or field settings away from the home campus, and to provide opportunities for greater diversity in collecting and creativity in analyzing data than would otherwise be possible using only locally available resources.

II. PROGRAM DESCRIPTION

Proposals whose focus falls within the scope of any program in the Division of Environmental Biology (DEB), or the Animal Behavior or Ecological and Evolutionary Physiology programs in the Division of Integrative Biology and Neuroscience (IBN) are eligible. Please note that DEB programs generally do not support research in marine ecology. The duration and grant amount are flexible but must be justified by the scope of work and documented in the proposal. Grants are typically awarded for 24 months and for amounts that range from $3,000 to $10,000. These awards are intended to provide supplemental funds for items not normally available from the student's university or other sources. They are not intended to provide the total costs of a student's dissertation research. Allowable items include travel to specialized facilities or field research locations, use of specialized research equipment, purchase of supplies and services not otherwise available, fees for computerized or other forms of data, and rental of environmental chambers or other research facilities. Funds may be requested for research assistants only in special circumstances and with special justification. Funds may not be used for stipends, tuition, textbooks, journals, allowances for dependents, travel to scientific meetings, publication costs, dissertation preparation or reproduction, or indirect costs. The budget justification must explain why and how the requested funds are supplemental to funding from the university or other sources. While the Foundation provides support for doctoral dissertation research, the awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for such findings or their interpretation. This program does not support research with disease-related goals, including research on the etiology, diagnosis, or treatment of disease, abnormality, or malfunction in human beings, animals, or plants.

III. ELIGIBILITY INFORMATION

A student must have advanced to candidacy for a Ph.D. degree to be eligible to submit a proposal. A statement that the student has advanced to candidacy for a Ph.D. signed by the department chairperson, graduate dean, or similar administrative official is required (see “Proposal Preparation and Submission Instructions”). The proposal must be submitted through regular university channels by the dissertation advisor (s) on behalf of a graduate student who is at the point of initiating or is already conducting dissertation research. The student must be enrolled at a U.S. institution, but need not be a U.S. citizen. Institutions should limit applications to outstanding dissertation proposals with unusual financial requirements that cannot be met otherwise. Preference may be given to projects that are underway and for which feasibility is demonstrated. A student may submit only one proposal in a given year and may not submit a new proposal after receiving funding for a previous DDIG proposal.
For purposes of this competition, NSF will not support research on human disease, including work on the etiology, diagnosis, or treatment of physical or mental disease, abnormality, or malfunction. Studies of animal models for such conditions, the design and testing of drugs or other procedures for their treatment are also not eligible for support. NSF does not normally support technical assistance, pilot plant efforts, research requiring security classification, the development of products for commercial marketing, or market research for a particular project or invention.

IV. AWARD INFORMATION

Under this announcement, proposals may be submitted for amounts that range from $3,000 to $10,000. NSF expects to fund 80-90 standard 24-month awards depending on the quality of submissions and the availability of funds. In some cases, the duration and grant amount are flexible but must be justified by the scope of the work and documented in the proposal. There is approximately $800,000 available annually, contingent upon the availability of funds. The anticipated date of awards: June.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Proposals submitted in response to this program announcement should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG) (NSF 00-2 or later editions). The complete text of the GPG (including electronic forms) is available electronically on the NSF Web Site at: http://www.nsf.gov/pubs/2000/nsf002/start.htm. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 or by e-mail from pubs@nsf.gov.

Specific instructions for Doctoral Dissertation Improvement Grants are:

1. Information about all Principal Investigators/Project Directors including the student and other co-PIs should be provided on NSF Form 1225. The NSF Form 1225 is created automatically in FastLane when you update your personal information.

2. Cover Page (NSF Form 1207)
   - Begin the Project Title on the Cover Page with “DISSERTATION RESEARCH:” followed by a brief title of the dissertation research project.
   - Select the Division to which the proposal is directed in the "NSF Unit(s) Consideration" section of the FastLane Cover Page. Only the Division of Environmental Biology (DEB) or the Division of Integrative Biology and Neuroscience (IBN) are appropriate consideration units.
   - List the primary dissertation advisor as the "PI/PD" and list the student and other advisors as "CO-PI/PD".

3. The Project Summary should be no more than 200 words.

4. Project Description
• This section is limited to 8 single-spaced pages including figures and tables. Character size may not be smaller than 10 points, 12 points is preferred, and no more than 15 characters per 2.5 cm including punctuation and spaces. Warning: Many 10-point fonts exceed these guidelines.

• The main body of the proposal should present in sufficient detail to permit evaluation: a description of the overall dissertation project including its design and scientific significance, progress to date, and what new data would be collected with the grant, including its design and analysis, that would otherwise not be gathered.

Special Notice: If color images are included add a statement under the image to say “Use NSF FastLane to view this figure in color.”

Proposers may not submit separate hard copy submissions of color pages for proposals submitted for this announcement. Color figures printed at NSF will print as grey scale.

• The "Results from Prior NSF Support" section is not required.

5. Budget Justification

In the Budget Justification explain the need for each budget item requested in the context of the proposed research project and why the institution cannot provide it. A request for per diem allowance for time away from a home base to conduct research should be carefully justified in terms of only those living costs in excess of those in the vicinity of the home campus or institution.

6. Special Information and Supplementary Documentation

Scan all Special Information and Supplementary Documentation and transfer as PDF in the “Supplementary Docs” form of FastLane. YOU MUST INCLUDE A STATEMENT THAT THE STUDENT HAS ADVANCED TO CANDIDACY FOR A Ph.D. SIGNED BY THE DEPARTMENT CHAIRPERSON, GRADUATE DEAN, OR SIMILAR ADMINISTRATIVE OFFICIAL.

7. BIO Proposal Classification Form (PCF): Complete the BIO PCF, available on the NSF FastLane system. The PCF is an on-line coding system that allows the Principal Investigator to characterize his/her project when submitting proposals to the Directorate for Biological Sciences. Once a PI begins preparation of his/her proposal in the NSF FastLane system and selects a division, cluster, or program within the Directorate for Biological Sciences as the first or only organizational unit to review the proposal, the PCF will be generated and available through the Form Preparation screen. Additional information about the BIO PCF is available in FastLane at https://www.fastlane.nsf.gov/a1/BioInstr.htm.

Proposers are reminded to identify the program announcement number (NSF 00-95) in the program announcement/solicitation block on the proposal Cover Sheet (NSF Form 1207). 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 is not required in proposals submitted under this Program Announcement.

C. Deadline/Target Dates

For electronic submission of proposals, the proposal MUST be submitted by 5:00 PM, submitter’s local time, on the Third Friday in November, annually.

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this Program Announcement through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: https://www.fastlane.nsf.gov/a1/newstan.htm.

Submission of Signed Cover Sheets. The signed copy of the proposal Cover Sheet (NSF Form 1207) must be postmarked (or contain a legible proof of mailing date assigned by the carrier) within five working days following proposal submission and be forwarded to the following address:

National Science Foundation
DIS – FastLane Cover Sheet
4201 Wilson Blvd.
Arlington, VA 22230

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.

Proposals will be reviewed against the following general review criteria established by the National Science Board. Following each criterion are potential considerations that the reviewer may employ in the evaluation. These are suggestions and not all will apply to any given proposal. Each reviewer will be asked to address only those that are relevant to the proposal and for which he/she is qualified to make judgements.

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?

Principal Investigators should address the following elements in their proposal to provide reviewers with the information necessary to respond fully to both of the above-described NSF merit review criteria. NSF staff will give these elements careful consideration 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.

A summary rating and accompanying narrative will be completed and signed by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are mailed 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.

**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 will be reviewed by Mail Review followed 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.
NSF will be able to tell applicants whether their proposals have been declined or recommended for funding within six months for 95 percent of proposals. The time interval begins on the proposal deadline or target date or from the date of receipt, if deadlines or target dates are not used by the program. 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 its 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 NSF brochure, program guide, 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 web site at http://www.nsf.gov/home/grants/grants_gac.htm. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 or by e-mail from pubs@nsf.gov.

C. Reporting Requirements

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

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Approximately 30 days before expiration, NSF will send a notice to remind the PI of the requirement to file the final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

NSF has implemented an electronic project reporting system, available through FastLane. 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 should be made to the Doctoral Dissertation Improvement Grants in the Directorate for Biological Sciences Program:

- Michael Willig, Program Director, Environmental Biology, 635, telephone: (703) 292-7198, e-mail: mwillig@nsf.gov.
- Stephen Vessey, Program Director, Integrative Biology and Neuroscience, 685, telephone: (703) 292-7875, e-mail: svessey@nsf.gov.

For questions related to the use of FastLane contact the Directorate for Biological Sciences, Information and Automation Resources Unit on e-mail: biofl@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 listed in Appendix A of the GPG. Any changes in NSF’s fiscal year programs occurring after press time for the Guide to Programs will be announced in the NSF Bulletin, available monthly (except July and August), and in individual program announcements/solicitations. The Bulletin is available electronically via the NSF web site at http://www.nsf.gov/home/ebulletin/. Subscribers can also sign up for NSF’s Custom News Service (http://www.nsf.gov/home/cns/start.htm) to be notified of new funding opportunities that become available.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Awardees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities and persons with disabilities to compete fully in its programs. In accordance with Federal statutes, regulations and NSF policies, no person on grounds of race, color, age, sex, national origin or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF (unless otherwise specified in the eligibility requirements for a particular program).

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 program announcement/solicitation or contact the program coordinator at (703) 306-1636.

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) 306-0090, FIRS at 1-800-877-8339.

The National Science Foundation is committed to making all of the information we publish easy to understand. If you have a suggestion about how to improve the clarity of this document or other NSF-published materials, please contact us at plainlanguage@nsf.gov.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

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

Pursuant to 5 CFR 1320.5(b), an agency may not conduct or sponsor, and a person is not
required to respond to an information collection unless it displays a valid OMB control number.
The OMB control number for this collection is 3145-0058. Public reporting burden for this
collection of information is estimated to average 120 hours per response, including the time for
reviewing instructions. Send comments regarding this burden estimate and any other aspect of
this collection of information, including suggestions for reducing this burden, to: Suzanne
Plimpton, Reports Clearance Officer, Information Dissemination Branch, Division of
Administrative Services, National Science Foundation, Arlington, VA 22230, or to Office of
Information and Regulatory Affairs of OMB, Attention: Desk Officer for National Science
Foundation (3145-0058), 725 - 17th Street, N.W. Room 10235, Washington, D.C. 20503.

OMB control number: 3145-0058.