

Undergraduate Mentoring in Environmental Biology (UMEB)

Program Solicitation

NSF 00-130

DIRECTORATE FOR BIOLOGICAL SCIENCES

TARGET DATE(S):

October 31 of each year



NATIONAL SCIENCE FOUNDATION



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SUMMARY OF PROGRAM REQUIREMENTS

GENERAL INFORMATION

Program Title: Undergraduate Mentoring in Environmental Biology (UMEB)

Synopsis of Program: The intent of this activity is to provide support for talented undergraduate students to gain research experience in biological sciences related to the environment within a culturally diverse, research-rich learning environment. A second intent is to enable faculty members to become better mentors. Proposed projects should involve year-round mentoring and include major emphasis on direct student participation in research. Research activities should encompass the academic year and summer, with individual students continuing in the program for more than one year. Projects should emphasize factors that encourage and enable members of underrepresented groups, as defined in the Program Solicitation, to enter and remain in environmental biology, as broadly defined in the Program Solicitation.

Cognizant Program Officer(s):

- Please see the list of UMEB program officers at <http://www.nsf.gov/bio/progdes/umeb.htm>, or direct general inquiries about UMEB to, e-mail: umeb@nsf.gov.

Applicable Catalog of Federal Domestic Assistance (CFDA) Number:

- 47.074 --- Biological Sciences
- 47.076 --- Education and Human Resources

ELIGIBILITY INFORMATION

- **Organization Limit:** The Undergraduate Mentoring in Environmental Biology (UMEB) activity will consider proposals from any institution (or set of collaborating institutions) that has (have):
 - at least two currently funded or recently expired (having expired no earlier than two years before the UMEB submission date) multi-year research awards (excluding Small Grants for Exploratory Research, equipment, facilities, travel, symposium, workshop, and planning grants, supplements or fellowships) from NSF in biological sciences related to the environment, as defined in this solicitation. REU-Site awards, Collections awards from all BIO divisions, as well as training grants such as RTG and IGERT, in biology related to the environment can also count towards eligibility; and

- a third active or recently-expired, externally-funded multi-year research award, from any source listed in Section III of the Program Solicitation, in biology related to the environment.
- **PI Eligibility Limit:** At least one PI from each of the three awards that confer eligibility must be involved in the proposed UMEB project, at least as a mentor.
- **Limit on Number of Proposals:** None

AWARD INFORMATION

- **Anticipated Type of Award:** Standard or Continuing Grant
- **Estimated Number of Awards:** 5 awards per year.
- **Anticipated Funding Amount:** Up to \$3,000,000 per year will be available for this initiative, subject to the availability of funds.

PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Guidelines

- **Proposal Preparation Instructions:** Supplemental Preparation Guidelines
 - The program announcement/solicitation contains supplements to the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full program announcement/solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required
- **Indirect Cost (F&A) Limitations:** An administrative allowance (limited to 25% of Line F1) is allowed in lieu of indirect costs (enter at Line I of Form 1030); see Section V.A.6 of the Program Solicitation for information about administrative allowance for ethics activities.
- **Other Budgetary Limitations:** Budget requests should not exceed \$400,000 total costs for each 4-year proposal, except for up to \$4,000 per year in additional funds that may be requested for ethics activities (see Section V.A.6 of this solicitation for details).

C. Deadline/Target Dates

- **Letter of Intent Due Date(s):** None
- **Preproposal Due Date(s):** None
- **Full Proposal Due Date(s):**

October 31 of each year

D. FastLane Requirements

- **FastLane Submission:** Full Proposal Required
- **FastLane Contact(s):**
 - Specialists listed on the UMEB Web page at <http://www.nsf.gov/bio/progdes/umeb.htm>, e-mail: biofl@nsf.gov.

PROPOSAL REVIEW INFORMATION

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

AWARD ADMINISTRATION INFORMATION

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

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I. INTRODUCTION

The National Science Foundation (NSF) mandate to ensure the vitality of the nation's scientific and engineering enterprise requires a focus on the quality, distribution and effectiveness of the human-resource base in science and engineering, including full utilization of all potentially interested and qualified persons. Because members of certain groups are underrepresented in the science, mathematics, and engineering workforce, the Foundation and its Directorate for Biological Sciences (BIO) support efforts directed toward increasing their numbers as full participants in the scientific mainstream.

In keeping with such efforts, the four Divisions of BIO, which include the Division of Environmental Biology (DEB), the Division of Integrative Biology & Neuroscience (IBN), the Division of Biological Infrastructure (DBI), and the Division of Molecular & Cellular Biosciences (MCB), are soliciting proposals for Undergraduate Mentoring in Environmental Biology (UMEB). This activity is designed to enhance the opportunities for undergraduate students, particularly those from underrepresented groups, to participate in research in biological sciences related to the environment. For the purposes of this solicitation, these groups include persons with disabilities and members of those racial and ethnic groups underrepresented in science, mathematics and engineering: Native Americans (American Indians and Alaskan Natives), Blacks (African Americans), Native Pacific Islanders (Polynesians or Micronesians), and Hispanics (Latinos).

Also for the purposes of this solicitation, "environmental biology" is broadly defined to include areas of research focusing on organisms as they evolve, interact with each other, and/or interact with their environment, from perspectives that range from ecosystem to development and physiology to molecular genetics. BIO encourages proposals that include research themes in behavior, ecology, ecosystems, ecological physiology, evolutionary biology, population biology, and/or systematics, as well as proposals in other areas that address themes in animal, plant, or microbial biology with environmental emphases. Projects involving the use of molecular tools, genomics approaches, mathematical modeling, and other integrative approaches to biology related to the environment are also encouraged. The theme of the project should be in areas typically funded by NSF's Directorate for Biological Sciences, although mentors can be from other areas (e.g., biological oceanography, physical anthropology, applied mathematical biology). The proposed research and training activities should not have biomedical goals.

The UMEB activity is an extension of, and builds upon, NSF's Research Experiences for Undergraduates (REU) program (NSF 00-107). UMEB differs from REU in its focus on biology related to the environment, in expecting each student to continue in a year-round UMEB project for more than one year, and in emphasizing more strongly the mentoring of members of groups that are underrepresented in science and engineering.

Information about previously awarded UMEB grants can be found on the home page of NSF's Directorate for Biological Sciences at: <http://www.nsf.gov/bio/pubs/awards/umebawds.htm>

II. PROGRAM DESCRIPTION

The intent of this activity is to provide support for talented students to gain research experiences in biological sciences related to the environment and to foster an enriched and culturally diverse

research and educational environment. A second intent is to enable faculty members to become better mentors. Proposed projects should involve year-round mentoring and include major emphasis on direct student participation in research. Research activities should encompass the academic year and summer, with individual students continuing in the program for more than one year. Projects should emphasize factors that encourage and enable members of underrepresented groups to enter and remain in environmental biology, as broadly defined above. The Directorate for Biological Sciences (BIO) particularly encourages UMEB proposals involving collaboration between research universities and predominantly undergraduate institutions, including community colleges, with significant enrollment of students from underrepresented groups, and/or a tradition of training such students.

Principal Investigators are encouraged to include international research activities in which several students are accompanied by a mentor, such as research collaboration with international partners at field sites or institutions abroad.

In order to complement UMEB projects, Principal Investigators are encouraged to consider other NSF activities with objectives similar to those of UMEB, including activities in the Directorate for Education and Human Resources. BIO encourages the submission of requests for Research Opportunity Awards (described in the program for solicitation Research in Undergraduate Institutions) by Principal Investigators with current research awards who seek to bring a scientist from a predominantly undergraduate institution, including minority-serving institutions that are predominantly undergraduate, to work on a funded project. Information on NSF activities with objectives similar to those of UMEB can be found by conducting a search of publications on the NSF Web site at: <http://www.nsf.gov/cgi-bin/pubsys/browser/odbrowse.pl>.

III. ELIGIBILITY INFORMATION

The Undergraduate Mentoring in Environmental Biology (UMEB) activity will consider proposals from any institution (or set of collaborating institutions) that has (have):

- at least two currently funded or recently expired (having expired no earlier than two years before the UMEB submission date) multi-year research awards (excluding Small Grants for Exploratory Research, equipment, facilities, travel, symposium, workshop, and planning grants, supplements or fellowships) from NSF in biology related to the environment, as defined in Section I. REU-Site awards, Collections awards from all BIO divisions, as well as training grants such as RTG and IGERT, in biology related to the environment can also count towards eligibility; and
- a third active or recently-expired (having expired no earlier than two years before the UMEB submission date), externally-funded multi-year research award in biology related to the environment from any federal, state, regional, or local agency, non-governmental organization, or private source.

NOTE: At least one PI from each of the three awards that confer eligibility must be involved in the proposed UMEB project, at least as a mentor.

Institutions submitting collaborative proposals must have, collectively, a total of at least three eligible awards.

IV. AWARD INFORMATION

Under this solicitation, proposals may be submitted for funding amounts up to a total of \$400,000 over 4 years, with up to \$4,000 per year in additional funds requested for ethics activities. The program expects to make at least five standard or continuing 4-year awards each year, depending upon the quality of submissions and the availability of funds. Up to \$3,000,000 will be available each year for this initiative, subject to the availability of funds. Anticipated date of award is ten months from proposal submission.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation 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) (NSF 00-2). 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.

The following six items specific to UMEB are supplements to the standard GPG guidelines. All proposal sections listed in GPG are required even though not listed here.

1. Cover Sheet

Select Program Solicitation NSF 00-130 (UMEB) from the pull-down menu in FastLane. For NSF Division, select the most appropriate BIO Division. Begin the title of the proposal with "UMEB:" . The first-listed Principal Investigator (PI) is designated as the primary PI and is responsible for coordinating the entire proposed project.

2. 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 within the Directorate for Biological Sciences as the organizational unit to review the proposal and saves the cover sheet, the PCF will be generated and available on the Form Preparation screen. Additional information about the BIO PCF is available in FastLane at <http://www.fastlane.nsf.gov/a1/BioInstr.htm>.

3. Project Description (maximum 15 pages) must describe:

(a) A theme that integrates the proposed research, mentoring, and educational activities (not more than 5 pages). The theme

- may be integrative across a range of disciplines in biological sciences related to the environment or may be tightly focused in one such discipline;
- should be amplified with the names and brief descriptions of prospective mentors' current research projects (funded or unfunded) that are appropriate for undergraduate participation and relevant to the UMEB proposal;

- can be further amplified by describing potential linkages or partnerships among participating organizations (e.g., academic institutions, federal or state laboratories, private foundations), including student research opportunities, as well as logistical arrangements for coordination.

(b) A detailed plan for student activities.

- Include specific activities focusing on the undergraduate research experience. Examples of such activities include common courses on conducting research, research projects, rotations through several research laboratories, field trips, weekly journal clubs, and travel to local, regional, or national meetings.
- Include specific activities focusing on career exploration. Examples of such activities include career fairs, GRE preparation, and seminars by professionals in a variety of career roles.

(c) A detailed plan for building a research-rich, culturally-diverse community of biologists.

- Describe plans for specific mentoring arrangements (e.g., networks that can include faculty, community partners, graduate students, campus advisors, and/or UMEB peers, training in mentoring skills and/or in cultural awareness). Include references to literature on pedagogy, including effective mentoring.
- Describe efforts to recruit minority students to the program or campus, e.g., via links to high schools or community colleges with programs that encourage minority students to pursue careers in science, mathematics, or engineering.
- Describe evidence of institutional commitment to increasing participation of groups that are underrepresented in science and potential mechanisms for continuing the project activities beyond the NSF funding period.
- Describe other support (federal or non-federal) for the UMEB project or for related activities.

(d) A detailed plan for administration and management.

- Describe proposed methods for communicating, coordinating, and managing activities within the project. If the project involves collaboration between institutions, include plans for inter-institutional coordination and for year-round mentoring for all students.
- Describe proposed administrative infrastructure (e.g., graduate-student coordinator, logistical support from a work/study office, mechanisms for undergraduate advising or study-skills enhancement).
- Include a timetable of proposed activities for the entire 4 years.

(e) A detailed plan for assessment and dissemination of information.

- Include assessment plans for evaluating the effectiveness of the program, including such matters as: measures to be employed to gauge project success; mechanisms for

assessment of the project by participants and faculty and administrative observers; follow-through procedures to promote continuation of student interest and involvement in research; plans for tracking participants after they complete the project research experience; etc. Annual progress reports are required through the NSF project-reporting system in FastLane. The progress report calls for information on project participants, on the research training provided and other educational activities, on publications and products, and, most important, on contributions to education and human-resource development. Data for the progress report should feed into the project evaluation plan which in turn should enable informed statements about contributions and success in meeting project goals.

- Describe how information about the project is to be disseminated. Include attendance of at least two faculty members at UMEB-related workshops to be held each year at NSF or at national scientific meetings.

(f) A list of at least three currently funded or recently expired multi-year research awards in environmental biology, as described in the "Eligibility" section of this Program Solicitation.

4. Results from Prior NSF Support

For UMEB proposals, information required by NSF about Results from Prior NSF Support is limited to one page per PI and is not part of the 15-page limitation of the Project Description. Include the Results from Prior NSF Support in the Supplementary Documentation section of FastLane.

5. Budget

Provide detailed yearly budgets for the 4 years of the proposed project, as described in the current issuance of the *Grant Proposal Guide* (GPG). FastLane will generate a cumulative budget. A budget justification is required and must not exceed a total of 3 pages. In the budget justification, explain and justify major cost items and any unusual situations/inclusions. A general description of allowable budget items is included in GPG, Section II.D.7. Include in the proposed budget travel funds for two faculty members to attend four UMEB-related workshops during the 4-year duration of the project.

As a guide to budget development, student stipends for summer projects are expected to be at least \$3,000 per summer, with academic-year stipends comparable on a *pro rata* basis. In addition to stipend costs, costs of student housing, student summer health insurance, and student travel to field sites are appropriate budget items. All student costs should be entered at Lines F1 through F4 of NSF Form 1030. It is expected that by far the greatest part of the budget will be allocated for student stipends (Line F1). Examples of other allowable costs include travel to professional meetings for students (Line F2) and for faculty when accompanied by students (Line E); up to \$3,000 per student per year for research supplies; part-time support for a coordinator (e.g., a graduate student or advanced undergraduate) for logistical support, not as a substitute for faculty mentors; modest management costs (e.g., for recruitment, assessment, dissemination, mentor training), and field-station fees (Line F4). Modest scientific equipment requests that are directly related to student research projects will also be considered.

Special Note: A grantee may pay stipends as either scholarships or wages as it determines appropriate. In either case, money received by individuals may be taxable income under the Internal Revenue Code of 1986 and may also be subject to state or local taxes. Grantees should provide participants with information on any applicable federal, state or local taxes. Questions regarding applicable federal taxes should be directed to the IRS.

6. Special Information and Supplementary Documentation

Include Results from Prior NSF Support, if applicable, as well as applicable certifications involving research with vertebrate animals, human subjects, recombinant DNA, or endangered species. In addition, the following two items may be provided.

Optional Ethics Component (limit, 3 pages). Project directors may apply for support of ethics-in-science activities in a UMEB project. Ethics activities should focus on issues relevant to the scientific content of the project and emphasize active student (and, where possible, faculty) involvement in teaching and learning ethical concepts that bear on the issues and skills for their resolution. They may include individual student and faculty research projects, special seminars and symposia or courses, team projects, panel presentations and reports, etc. This section should describe the relevant qualifications of the ethics faculty, expected results of the ethics activities, a plan to evaluate how well the goals are achieved, and results from any prior support for an ethics activity.

Project directors may apply for up to \$4,000 each year in support of ethics activities in a UMEB project; these funds are not included in the overall maximum total costs of \$400,000. Up to 25% of the direct costs requested for this component may be budgeted as an administrative allowance, but the yearly total requested for ethics activities may not exceed \$4,000. A separate budget sheet is not possible in FastLane. Thus, the ethics budget is added into the yearly UMEB budget (NSF Form 1030), but must be itemized in the budget justification, with a total shown for the items plus administrative allowance.

Letters of Commitment. Signed letters of commitment documenting collaborative arrangements of significance to the proposal should be scanned and placed in this section. Letters may be relevant where the awardee and performing organizations are different, where faculty or facilities of more than one institution are to be employed, or where international activities are arranged. Letters of endorsement are not permitted.

Proposers are reminded to identify the program announcement/solicitation number (NSF 00-130) 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 Solicitation .

Indirect Cost (F&A) Limitations: An administrative allowance (limited to 25% of Line F1) is allowed in lieu of indirect costs (enter at Line I of Form 1030); see Section V.A.6 of the Program Solicitation for information about administrative allowance for ethics activities.

Other Budgetary Limitations: Budget requests should not exceed \$400,000 total costs for each 4-year proposal, except for up to \$4,000 per year in additional funds that may be requested for ethics activities (see Section V.A.6 of this solicitation for details).

C. Deadline/Target Dates

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

October 31 of each year

Proposals received after the established target date may still be reviewed, although they may miss a particular panel or committee meeting.

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this Program Solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: <http://www.fastlane.nsf.gov/a1/newstan.htm>. For FastLane user support, call 1-800-673-6188.

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.

Additional Review Criteria

The following additional criteria will receive emphasis in the evaluation of UMEB proposals:

- 1. Impact upon participating students, particularly upon students from groups typically underrepresented in science.

- 2. Cohesiveness of the educational, mentoring, and research components within the project theme.
- 3. Extent to which the project enriches the research environment in environmental biology at the participating institution(s).
- 4. Extent to which the project builds partnerships and networks that contribute to program goals.
- 5. Adequacy of plans for project management, monitoring, evaluation, assessment, and dissemination.
- 6. Cost-effectiveness of the project.
- 7. Institutional commitment to UMEB goals, which can include efforts to increase participation of underrepresented groups, and potential to sustain and institutionalize project activities beyond the NSF grant period.
- Award decisions may also consider the distribution of awards by subdiscipline and total funds available to the institution(s) for comparable efforts.

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/solicitation 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.

More comprehensive information on NSF Award Conditions is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, (NSF 95-26) available electronically on the NSF web site 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 web site at <http://www.gpo.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 Undergraduate Mentoring in Environmental Biology Program: Please see the list of UMEB program officers at <http://www.nsf.gov/bio/progdes/umeb.htm>, or direct general inquiries about UMEB to, e-mail: umeb@nsf.gov.

For questions related to the use of FastLane, contact, Specialists listed on the UMEB Web page at <http://www.nsf.gov/bio/progdes/umeb.htm>, 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 [E-Bulletin](#), which is updated daily on the NSF web site 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>) 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 (FASSED) 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 for further information.

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