

The Minority Institutions Assistance (MIA)

and

The Minority Academic Institutions (MAI)

Programs

Office of Exploratory Research



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INTRODUCTION

The U.S. Environmental Protection Agency (EPA) funds two major programs encouraging both faculty research and student training in environmental and related sciences within minority institutions. The two programs are the Minority Institutions Assistance (MIA) program and the Minority Academic Institution (MAI) program. The EPA administers the MIA program. The National Consortium for Graduate Degrees for Minorities in Engineering and Science (GEM, Inc.) administers the MAI program for EPA. MIA concerns itself with faculty research grants and with undergraduate training. MAI addresses graduate training.

Eligible institutions under both of these programs are defined as those identified by the Secretary of the Department of Education as Historically Black Colleges or Universities (HBCU's) and members of the Hispanic Association of Colleges or Universities (HACU's).

Minority Institutions Assistance (MIA) PROGRAMS

EPA, through its Office of Exploratory Research (OER), operates a special program to provide Federal assistance to minority institutions. The MIA program was initiated in 1981 in response to Executive Order 12320, issued September 18, 1981, to increase research support for eligible minority institutions and to provide fellowships for students attending these institutions. This order is now superseded by Executive Order 12677, dated April 28, 1989.

The MIA program has three separate components: the Research Assistance Program for faculty, the Undergraduate Fellowships Program for students attending qualified minority institutions, and the Summer Intern Program for students who have successfully completed the first year of the Undergraduate Fellowship Program.

Research Assistance Program

The MIA Research Assistance program is a part of the regular competitive research grants program managed by OER. MIA grant applications are processed, evaluated, and reviewed by the same criteria as all other applications. The differences between the MIA and the regular competitive program are that (1) the MIA institutions may, upon request, receive preapplication assistance and (2) a limited amount of money is set aside to fund MIA applications recommended by the peer-review panels.

The Program's four objectives are:

- To identify existing and potential environmental research capacity within minority institutions and to assist these institutions in participating in EPA research activity;
- 2. To help minority institutions become more competitive with other institutions for Federal funds;
- To provide an opportunity for minority students to gain research experience in environmental science fields; and
- 4. To promote good working relationships between the Agency and participating institutions.

Terms and Restrictions for Research Assistance— Consideration will be given only to applications submitted by institutions identified by the Secretary of the Department of Education as belonging to the HBCU's or HACU's.

In contrast to the regular grants program, preapplication assistance is available upon request. A potential investigator may submit a preapplication for informal scientific review and determination of its utility in the environmental sciences.

The Application Forms (SF 424 and 424A), instructions, and procedures are the same as those used for EPA's regular research grants, except that "MIA" as well as the discipline should be typed in Block 10 on the face page to identify the program to which the application is directed. One of the following designations for the discipline should be used:

Environmental Biology Chemistry and Physics, Water Chemistry and Physics, Air Environmental Engineering Environmental Socioeconomics

All of the research topic areas described for the regular research grant program are applicable to the MIA program and the publication "Solicitation for Research Grant Proposals," is available on request.

<u>Preapplication Assistance</u>— In order to provide meaningful preapplication assistance, a fully developed proposal must be submitted. Concept papers or preliminary ideas do not provide sufficient material for a preapplication technical review. Discussions with the MIA Program Manager of the OER staff may be helpful in the selection of the area of research. The MIA Program Manager is:

Virginia E. Broadway (RD-675) Research Grants Staff, OER Environmental Protection Agency 401 M Street, SW Washington, DC 20460

The preapplication proposal should be prepared in the same style and completeness as if it were a formal application.

Preapplication proposals are reviewed by OER staff for scientific or technical merit. The service is provided for only those institutions qualifying under the MIA program terms and restrictions for research assistance.

<u>Format of Research Application—.</u> A complete set of instructions is available in the SF 424, Application Kit for Assistance. a checkoff list has been included to assure that the application is complete. Questions about instructions can be answered by the MIA Program Manager.

Review Process of Formal Research Applications—. All applications will initially be reviewed by the Agency to determine their legal and administrative acceptability. Acceptable applications will then be reviewed by an appropriate peer-review panel. This review is designed to evaluate and rank each proposal according to its scientific or technical merit or both as a basis for recommending Agency approval or disapproval.

The peer-review panels base their judgement on the following criteria:

Quality of research plan, including theoretical and experimental design or both; originality; and creativity;

Qualifications of principal investigator and staff, including knowledge of subject area;

Potential contribution to scientific knowledge;

Availability and adequacy of facilities and equipment; and Budgetary justification.

A summary of the scientific review and recommendation of the panel or panels will be provided to each applicant.

<u>Peer-Review Panel Membership</u>— Each peer-review panel is composed primarily of non-EPA scientists and engineers who are experts in their respective disciplines. OER encourages the participation of scientists and engineers from minority institutions in all five review-panel disciplines. Interested scientists should contact the MIA Program Manager.

<u>Application Procedures—</u> Application forms, instructions, and other pertinent information are available in the EPA Research Grant Application/Information Kit. It is recommended that interested investigators review the material in this kit before preparing an application for assistance. The kits are available from:

U.S. Environmental Protection Agency Grants Operations Branch (PM-216F) 401 M Street SW Washington, DC 20460

Undergraduate Fellowship Program

The objective of the Undergraduate Fellowship Program to encourage students enrolled at minority institutions to develop careers in environmental research through the environmental sciences, biological sciences, physical sciences, computer sciences, engineering, and mathematics. Awarded fellowships provide payment of full tuition and fees, a \$250 annual book allowance, and a monthly stipend of \$125 for both the Junior and Senior academic years of a 4-year course of study.

Terms and Restrictions for Student Fellowship Assistance-

Consideration will be given only to applicants enrolled in minority institutions with two years remaining from the start of the Fall semester before receiving a Bachelor of Science degree, with emphasis on, or special interest in environmental research careers.

Applicants must be full-time students (as defined by the institution as full-time curriculum for a school year) and have at least a "B" average overall with a major in physical science, biological science, (with a special emphasis on environmental science), computer science, mathematics, and engineering.

Applicants must be citizens of the United States, its territories, or possessions, or lawfully admitted to the United States for permanent residence.

If selected, the candidate must agree, in writing, to participate in the Summer Intern (SI) Program following his or her Junior year. Funding for the Senior year depends upon the candidate's completing this internship. In order for him or her to receive the second year's support, he or she must (1) maintain a minimum of a 3.0 grade point average (GPA), (2) completes a full-time schedule of courses for one academic year, (3) complete an internship at EPA under the Minority Institution Summer Internship Program (or provide an acceptable explanation for not fulfilling this requirement), and (4) must have an intention to maintain the GPA and full-time schedule for the second (senior) year.

The Environmental Protection Agency reserves the right to limit the number of awards to a particular college or university.

<u>Application Procedures—</u> Each year (around November) the solicitation for the EPA Student Fellowship Program is sent to all eligible minority institutions with applications due in February or March. Application forms, instructions, and other pertinent information are available in the EPA Fellowship Application Kit.

Applicants receive these kits from their advisor who then assumes the responsibility for seeing that all forms are correctly prepared and complete and carry original signatures of officials designated on the form.

The advisor will also ensure that the application is received by the deadline date set for that year.

Review Process for Fellowship Applications— All applications will be reviewed by an appropriate fellowship-review panel and evaluated in terms of the items listed below. Each item is assigned a score. The maximum score for each item appears in parentheses at the end of that item.

- 1. **Grade-point average (GPA)** verified by college transcripts (15)
- 2. Academic performance including the number of courses repeated, rate of progression, and science courses taken (15)
- 3. Applicant's statement of objectives and personal goals and his or her orientation toward and commitment to a career in the environmental sciences, physical sciences (chemistry, physics), biological sciences (microbiology, ecology, marine biology, biochemistry), computer science, mathematics, or engineering (25)
- 4. Recommendations by sponsor and faculty (20)
- 5. Employment experience related to the field of study (5)
- 6. Facilities and commitment statement containing the sponsor's summary of plans for the applicant's proposed training and the facilities available to him or her (20) For administrative and technical information contact the following person:

Virginia Broadway
MIA Program Manager
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
(202) 260-7664

Summer Intern Program

All fellowship recipients are required to serve a 10-12-week summer internship at an EPA facility. The internship is a continuation of the fellowship and is served during the summer following the junior year. This program was started in 1985 with the objective of allowing students to apply their newly acquired skills to real-world environmental problems. The program provides greater motivation to those students who are truly interested in environmental conditions to target their continuing education and, ultimately, their careers to the environment. Funding for the senior year of the fellowship depends on the recipient's having completed the Summer Internship Program.

<u>Terms</u> <u>and</u> <u>Restrictions</u> <u>for</u> <u>Interns</u>— The following terms and restrictions apply for interns:

- 1. Eligibility for the Summer Intern Program is extended only to current holders of minority academic fellowships;
- 2. Students in this program are assigned to a specific project at an EPA facility and are supervised and overseen by a mentor. The mentor gives the student guidance and advice during the summer assignment;
- 3. Appointments are for approximately three months, from early June through late August;
- 4. Mentors assist students in locating and arranging adequate and affordable housing and daily commuting expenses to and from the project site; and
- 5. Interns receive a stipend to cover expenses for food, housing, day-to-day daily commuting expenses and travel to the project site at the beginning of the internship and back to their permanent residence at the end.

Assignment Procedures— Between December and March of an academic year, fellows are contacted concerning upcoming summer assignments. Based on their area of study and personal interests, they are interviewed by EPA organizations offering summer assignments. A match is made and an assignment start date is scheduled. Interns begin their assignments in accordance with that start date. More information on these procedures may be obtained by contacting the following person either by letter or telephone:

Alvin Edwards (RD-675)
Research Grants Staff
U.S.Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
(202) 260-7663

Minority Academic Institutions (MAI) PROGRAM

The MAI program was created from recommendations of the President's Task Force on Women, Minorities, and the Handicapped in Science and Technology, established in 1987, in response to Public Law 99-383. In response to a report issued by this Task Force in 1989, EPA created the Administrator's Workgroup on Women, Minorities, and Handicapped in Science and Technology to review the recommendations from the report and develop a comprehensive strategy for EPA to A part of this strategy was the creation of the Minority Academic Institutions (MIA) program, which began in 1992. Program, whose main purpose is to support graduate students in environmental and allied sciences in minority institutions, is managed by the National Consortium for Graduate Degrees for Minorities in Science and Engineering (GEM), Inc., through a training grant.

Purpose and Eligibility

The MAI program supports, through traineeships to HBCU's and HACU's, student training at both the masters and doctoral levels. Elements of the program include both academic training and laboratory internships. Support is provided to students who have already obtained undergraduate degrees and wish to pursue either masters or Ph.D. degrees in science, mathematics or engineering. This student support is granted to prepare and encourage students to pursue careers in environmental research.

Eligible HBCU'S and HACU's are those offering master's and doctoral degree programs that emphasize or prepare students for environmental research careers. Traineeships are awarded on a competitive basis to those institutions. To be eligible for consideration, proposals most address the research needs of EPA's laboratories. Relevant research areas include, but are not limited to physical sciences, computer science, biological science (with a special on environmental science), mathematics, and engineering.

Competing institutions must demonstrate a commitment to guiding students through to the successful completion of research plans and graduate degree attainment in those disciplines relevant to environmental careers.

Applicants who successfully compete for traineeships must support qualified students at their institutions.

Traineeship Support

Traineeships will be awarded for two years, tenable over three years, for a master's study and three years, tenable over five years, for a doctoral study. Traineeship support will cover tuition, fees, book allowances, and a monthly stipend. The total amount awarded for the master's study is \$20,000. Total funding for the doctoral study is \$75,000. Students in the master's study program must serve a 10-12-week summer traineeship during which they receive a total of \$5,000. This traineeship must be served after their first year in the program. Future funding, if any, depends on completion of this traineeship. The traineeship will be served at an EPA research laboratory.

Application Requirements

Applications for traineeships from minority institutions are due in December. Solicitations and accompanying information for the submission of applications for traineeships are available, upon request, from:

Eastern Regional Office - GEM Stadium Drive Building #092, Room 1108 College Park, MD 20742-3415 (301) 405-2849

Eligible institutions must submit an original and two copies of an 8 to 10 page proposal to GEM, at the above address. It should include all of the information requested in the application solicitation and should be accompanied by a cover letter of one page or less indicating what the proposal is, how much it will cost, and how it complements EPA research interests. This letter should be submitted by the person whose name appears on the proposal's title page. Incomplete proposals will not be considered.

After the title page, the first item on which should be the amount requested, the rest of the proposal should include the sections listed next. Each section receives a score. The maximum score appears in parentheses at the end of that section.

 Summary--abstract explaining applicant's project, whom and how many it will benefit, and how it relates to the EPA-MAI program's interests (5)

- 2. Need--evidence demonstrating the need for the project and the institution's ability to carry out that project (20)
- 3. Goals--evidence that what is proposed is realistic, possible, and measurable (15)
- 4. Method of Implementation--overview of the most efficient way to achieve the objective or objectives, together with a timetable for steps to be taken (15)
- 5. Qualifications—overview of institution's credentials, including accomplishments of key personnel and description of non-personnel resources such as libraries, laboratories, and equipment (25)
- 6. Evaluation—methods to be used to monitor progress and measure final success (15)
- 7. Budget Request—specifics about number of fellowships requested and tuition, fees, and stipend cost (10)

For further information, write to this address or telephone:

Virginia Broadway
MIA Program Manager
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
(202) 260-7664

Evaluation Criteria

Traineeship proposals will be reviewed by an independent panel according to the following criteria:

- 1. Relevance (including quality of rationale/scope, originality and innovation in relation to EPA/MAI program objectives);
- 2. Likelihood of project completion (including methods, measures of success, and cost per student);
- 3. Number of students supported by the project;
- 4. Institutional resources qualifications (including matriculation history, facilities and equipment, etc.); and

5. **Faculty qualifications** such as knowledge of relevant research areas and/or number of students for which member serves as graduate advisor.

A summary statement of the review and recommendation of the panel is provided to each applicant. Grants are selected by EPA on the basis of technical merit and overall contribution to program objectives.