Title: Cooperative Activity with Department of Energy Programs for Education and Human Resource Development -- "Dear Colleague Letter"

Office of the Assistant Director for Education and Human Resources

## Dear Colleague:

The Principal Investigators (PIs) of National Science Foundation (NSF) awards managed by one of the NSF programs serving STEM education that often has participation by faculty, undergraduate students and/or pre-service teachers (see list below) are invited to consider participating in a cooperative effort between NSF and the Department of Energy (DoE) Office of Science.

Advanced Technological Education (ATE)

Centers for Learning and Teaching (CLT)

Centers of Research Excellence in Science and Technology (CREST)

Computer Science, Engineering, and Mathematics Scholarships (CSEMS)

Research on Gender in Science and Engineering (GSE)

Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)

Louis Stokes Alliances for Minority Participation (LSAMP)

Model Institutions for Excellence (MIE)

Math and Science Partnership (MSP): Comprehensive and Targeted Projects

Robert Noyce Scholarship Program

NSF Collaboratives for Excellence in Teacher Preparation (CETP)

Research in Disabilities Education (RDE)

Science, Technology, Engineering, and Mathematics Teacher Preparation (STEMTP)

Teacher Professional Continuum (TPC) Program

Tribal Colleges and Universities Program (TCUP)

To support the continued leadership of the United States in science, technology, engineering, and mathematics (STEM) and the continued development of a competitive, diverse STEM workforce, NSF and DoE are implementing collaboration between the agencies' programs for the development of human resources in STEM. As an immediate result of this effort, during FY 2006 NSF will support students and faculty from participating NSF projects (see list above) who are accepted as participants in one of four DoE initiatives that provide hands-on research opportunities in DoE national laboratories during the summer: Science Undergraduate Laboratory Internships (SULI), Faculty and Student Teams (FaST), Community College Institute of Science and Technology (CCI), and Pre-Service Teacher (PST) Internships. You are invited to encourage appropriate students and faculty to apply for these opportunities and, if DoE approves their applications, to then request supplemental funding from NSF to support their participation. (Please note: specific instructions for applying to DOE and for requesting supplement funding from NSF are in the attachment.)

A description of the opportunities is attached. SULI and CCI are designed for college students who could benefit from working in an advanced scientific research environment, FaST includes faculty and students teams in that opportunity, and PST internships target students who are preparing to become teachers of science, mathematics, and technology at elementary and secondary schools.

Note that for the first time, this invitation notifies and authorizes submission in each of three succeeding number years.

In FY 2006, FY 2007, and FY 2008 undergraduate students (two-year and four-year schools) may apply to DoE to participate in SULI or PST internships. Students enrolled in community colleges may participate in CCI or SULI, and if they are pre-service teachers (PST).

Faculty and student teams may participate in FaST. The amounts targeted for the NSF supplements for this cooperative program are \$4,500 for each student, and up to 2/9 academic year salary (up to \$12,000) for faculty.

NSF will support up to 91 students and 13 faculty, pending the availability of funds. Up to \$1,000 in additional participant support may be requested as reasonable accommodation for unusual/extraordinary travel expenses incurred by persons with disabilities; forward a formal request for supplemental funding to NSF.

This supplement request should be submitted as soon as possible but before 5 pm (submitter's local time), April 20, 2006, and by April 20 in 2007, and 2008 respectively.

We hope that you will give serious consideration to encouraging appropriate students and faculty to apply for the DoE initiatives and subsequently applying to NSF for a supplement to support the participants. As always, we cannot guarantee that a supplement request will be granted, but we will strive to fund as many as possible.

Sincerely,
Donald E. Thompson
Assistant Director (Acting)
Education and Human Resources

Attachment: Opportunities for NSF/EHR Grantee Participation in Programs of the Department of Energy Office of Science

# Opportunities for NSF/EHR Grantee Participation in Programs of the Department of Energy Office of Science

Science Undergraduate Laboratory Internships (SULI) target undergraduate students who have not had an opportunity to work in an advanced scientific research environment, especially students belonging to groups underrepresented in fields of science, mathematics, engineering, and technology. The SULI program incorporates both an individually mentored research component and a set of enrichment activities, which include lectures, classroom activities, career guidance and planning, and field trips. Additional information is available on the Web at <a href="http://www.scied.science.doe.gov/scied/erulf/about.html">http://www.scied.science.doe.gov/scied/erulf/about.html</a>.

Grantees of participating NSF/EHR STEM programs may request supplements to support the participation of undergraduate students in the SULI program. NSF provides stipend and travel support of \$4,500 per student.

Faculty and Student Teams (FaST) provides opportunities for college professors and students to participate in a 10-week highly interactive and stimulating immersion experience in a research environment in a DoE laboratory. This program encourages a sustainable professional relationship between the faculty and laboratory investigators. Workshops and training minimize the "culture shock" of working in a national laboratory setting. Additional information is available on the Web at <a href="http://www.scied.science.doe.gov/scied/sci\_ed.htm">http://www.scied.science.doe.gov/scied/sci\_ed.htm</a> and click on "Faculty and Student Teams Program."

Grantees of participating NSF/EHR STEM programs supporting undergraduate students may request supplements to support the participation of faculty-student teams in the FaST initiative. NSF provides up to 2/9 academic year salary (up to \$12,000) per faculty member for up to thirteen college faculty members (nationwide). Each faculty member who is selected to participate will select up to three undergraduate students to join the research team; NSF provides stipend and travel support of \$4,500 per student.

Community College Institutes (CCI) places students from community colleges in paid internships in Science and Engineering and Technology. Because of the comprehensive nature of this program many of the participants have felt it has had an enormous influence on their careers. Students work with scientists or engineers on projects related to the laboratories' research programs. They also attend career planning and numerous training/informational sessions. Additional information is available on the Web at <a href="http://www.scied.science.doe.gov/scied/CCI/about.html">http://www.scied.science.doe.gov/scied/CCI/about.html</a>.

Grantees of participating NSF/EHR STEM programs supporting community/two-year college students may request supplements to support the participation of undergraduate students in the CCI program. NSF provides stipend and travel support of \$4,500 per student.

*Pre-Service Teacher (PST) Internships* target students who are preparing to become teachers of science, mathematics, and technology at elementary and secondary schools. In addition to the research component found in the SULI program, the students are guided by a resident Master Teacher to learn how to transfer their newfound scientific research expertise to the classroom. This culminates in each student writing an educational module based on his or her research, which incorporates science standards and benchmarks. Additional information is available on the Web at <a href="http://www.scied.science.doe.gov/scied/PST/about.htm">http://www.scied.science.doe.gov/scied/PST/about.htm</a>

Grantees of participating NSF/EHR STEM programs supporting students in pre-service STEM teacher education may request supplements to support the participation of students in the PST Internships program. NSF provides stipend and travel support of \$4,500 per student.

For participants in all four initiatives, DoE provides support for housing, laboratory safety training, local travel, and other program costs.

During FY 2006 (and FY07, and FY08 respectively), grantees of participating NSF programs may encourage students and faculty members to apply to participate in the DoE initiatives (SULI, FaST, CCI, or PST Internships). Once a DoE applicant has accepted an offer from a DoE lab, e-mail will be sent by DoE to notify the PI. The PI may then request supplemental funding from NSF.

#### APPLYING TO DoE

Applications are reviewed by DoE beginning February 1, 2006.

SULI: NSF Principal Investigators (PIs) are asked to identify students who have the potential to benefit significantly from the research participation offered by the SULI program. These students should complete the SULI application on the DoE Office of Science Web site at <a href="http://www.scied.science.doe.gov/scied/erulf/about.html">http://www.scied.science.doe.gov/scied/erulf/about.html</a>. This form has a check box where students should indicate that they are affiliated with one of the participating NSF programs (including the grant award number, the PI's name, and the PI's e-mail address). Once a DoE applicant has accepted an offer from a DoE lab, e-mail will be sent by DoE to notify the PI. The PI may then request supplemental funding from NSF.

FaST: NSF Principal Investigators (PIs) are asked to identify faculty members associated with one of the participating NSF/EHR grant programs to apply to the FaST Program. Faculty from colleges and universities with limited prior research capabilities and those institutions serving populations underrepresented in the fields of science, engineering and technology are encouraged to take advantage of the FaST opportunity to prepare students for careers in science, engineering, computer science, and technology and for their own professional development.

Along with information about the DoE program, the web site <a href="http://www.scied.science.doe.gov/scied/sci\_ed.htm">http://www.scied.science.doe.gov/scied/sci\_ed.htm</a> includes a downloadable DoE application for the faculty and student team members and laboratory project descriptions. Faculty should review the DoE FaST project descriptions and identify opportunities for which they are qualified, interested, and willing to make a commitment. Faculty applicants may contact laboratory Science Education directors for additional information on the project prior to submitting the application.

Download and submit an application to DoE, Office of Science, FaST program manager, Sue Ellen Walbridge at <a href="mailto:sue-ellen.walbridge@science.doe.gov">sue-ellen.walbridge@science.doe.gov</a>. Faculty members should select the project of interest to them and complete the application. Once a FaST team has been selected by a lab and has accepted the offer, the NSF PI will be notified by DoE by e-mail. The PI may then request an NSF supplement.

CCI: NSF Principal Investigators (PIs) are asked to identify two-year college students who have the potential to benefit significantly from the research participation offered by the CCI program. These students should complete the CCI application on the DoE Office of Science Web site at <a href="http://www.scied.science.doe.gov/CCI/about.html">http://www.scied.science.doe.gov/CCI/about.html</a>. This form has a check box where students

should indicate that they are affiliated with one of the participating NSF programs (including the grant award number, the PI's name, and the PI's e-mail address). Once a DoE applicant has accepted an offer from a DoE lab, e-mail will be sent by DoE to notify the PI. The PI may then request supplemental funding from NSF.

PST Internships: Grantees of participating NSF/EHR STEM programs supporting students in pre-service STEM teacher education are asked to identify students who have the potential to benefit significantly from the research participation offered by the PST Internships program. These students should complete the PST Internships application on the DoE Office of Science Web site at http://www.scied.science.doe.gov/PST/about.html.

Once a DoE applicant has accepted an offer from a DoE lab, e-mail will be sent by DoE to notify the PI. The PI may then request supplemental funding from NSF.

## REQUESTING SUPPLEMENTAL FUNDING FROM NSF

After DoE notifies the NSF PI that the DoE application has been approved, the PI may then submit a request for supplemental funding to NSF. This request should conform to the procedure outlined in NSF's Grant Policy Manual, Section 264 (see <a href="http://www.nsf.gov/pubs/manuals/gpm05">http://www.nsf.gov/pubs/manuals/gpm05</a> 131/gpm2.jsp#260).

NSF's FastLane system should be used to prepare and submit these requests for supplemental funding (<a href="https://www.fastlane.nsf.gov/fastlane.jsp">https://www.fastlane.nsf.gov/fastlane.jsp</a>). The requests should be submitted as soon as notification of application acceptance by DoE is received, but must be submitted by 5 pm (submitter's local time), April 20, 2006 (and April 20 of the ensuing 2 years).

To request the supplement, the PI should use the FastLane Proposals, Awards & Status function. The Supplemental Funding Request may be accessed via the Award and Reporting Functions. In the Supplemental Funding Request, the PI should complete:

Justification For Supplement: a brief (one-page) statement justifying participation in the relevant DoE initiative (e.g., alignment of the planned research with the overall program goals). Note that decisions will be based on the evaluation of submittals through use of the standard NSB Merit Review Criteria, and will take into account the quality of the proposed work and its expected benefits to the students and faculty participating.

Supplementary Docs: a copy of the notification from DoE that the students and/or faculty have been accepted.

Budgets (Including Justification): a budget for travel and stipend. On the budget page, stipends and travel support should be entered on Line F (Participant Support). Indirect costs are not allowed on participant support costs, and there is no administrative allowance in lieu of indirect costs. The amounts targeted for the NSF supplements for this cooperative activity are \$4,500 for each student (allocated as ten weekly stipends of \$400, and up to \$500 for travel), and up to 2/9 academic year salary (up to \$12,000) for faculty. NSF will support up to 91 students and 13 faculty. Up to \$1,000 in additional participant support may be requested as reasonable accommodation for unusual/extraordinary travel expenses incurred by persons with disabilities. This additional request must be included and justified in the submitted budget. DoE indicates that it provides reasonable accommodation at its research facilities.

FastLane Contact(s): FastLane Help Desk, telephone: 1(800) 673-6188, e-mail: fastlane@nsf.gov.

The PI must also send notification to NSF/EHR <u>DOE-EHR@nsf.gov</u> that the FastLane request has been submitted. The notification should include the PI's name, the grant to be supplemented by the seven-digit number, and the cognizant NSF Program Officer for the award.

Also, 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, including information on supplement-based project participants (individual and organizational), activities and findings, publications, and other specific products and contributions.

#### ADDITIONAL INFORMATION

Requests for additional information or clarifications may be e-mailed to DOE-EHR@nsf.gov

## 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, although some programs may have special requirements that limit eligibility.

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 <a href="http://www.nsf.gov">http://www.nsf.gov</a>

•	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
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#### 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.

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, Division of Administrative Services, National Science Foundation, Arlington, VA 22230.

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