

Grant Writing Proposal Workshop for Graduate Engineering Students

I. Potential Fellowship Opportunities

NATIONAL SCIENCE FOUNDATION OPPORTUNITIES

SBE Minority Postdoctoral Research Fellowships and Follow-up Research Starter Grants (MPRF)
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503424&org=NSF&sel_org=NSF&from=fund

Synopsis of the Program: The Directorate for Social, Behavioral and Economic Sciences (SBE) offers Minority Postdoctoral Research Fellowships and Research Starter Grants in an effort to increase the diversity of researchers who participate in NSF programs in the social, behavioral and economic sciences and thereby increase the participation of scientists from underrepresented groups in selected areas of science in the United States. These activities (postdoctoral fellowships and follow-up research starter grants) support training and research in the areas of social, behavioral and economic sciences within the purview of NSF.

Educational Opportunity: This program provides educational opportunities for Postdoctoral Fellows. This program provides indirect funding for students at this level or focuses on educational developments for this group such as curricula development, training or retention. To inquire about possible funding opportunities not directly from NSF, please look at the active awards for this program.

Application Deadline: Full Proposal Deadline Date: October 15, 2012, Third Monday in October, Annually Thereafter

National Science Foundation Graduate Research Fellowship Program. www.nsfgrfp.org

Synopsis of the Program: The National Science Foundation's Graduate Research Fellowship Program (GRFP) helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity. The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions. The NSF welcomes applications from all qualified students and strongly encourages under-represented populations, including women, under-represented racial and ethnic minorities, and persons with disabilities, to apply for this fellowship.

Educational Opportunity: GRFP Fellows receive three years of support with a \$30,000 annual stipend (\$10,500 cost-of-education allowance to the institution (anticipated to increase to \$12,000 for 2012)), International research and professional development opportunities, and TeraGrid Supercomputer access.

Application Deadline submitted by 7:00 p.m., Eastern Standard Time

- November 14, 2011- Engineering
- November 15, 2011 - Mathematical Sciences; Computer and Information Sciences and Engineering; Chemistry; Physics and Astronomy; Materials Research
- November 16, 2011 - Social Sciences; Psychology; Geosciences; STEM Education and Learning Research
- November 18, 2011 - Life Sciences

DEPARTMENT OF ENERGY OPPORTUNITIES

Office of Science Graduate Fellowship (DOE SCGF) <http://scgf.ornl.gov/overview.html>

- **Research Stipend:** Fellows will receive a research stipend of \$5,000 per year, which may be used for the following purposes:
 - Travel, lodging, meals, and registration/participation fees for approved research activities and/or professional development experiences;
 - Travel, lodging, meals, and registration/fees to scientific/technical research conferences or professional meetings;
 - Purchase of laboratory research supplies relevant to participant's graduate research;
 - Journal subscriptions relevant to graduate studies or scientific professional development;
 - Books for coursework or graduate research; or
 - Computer and peripherals for academic use (not to exceed \$900 of research stipend per year).
- **Annual DOE SCGF Research Conference: the fellow's travel and accommodations for the annual DOE SCGF Research Conference will be provided by the DOE SCGF program.**

Application Deadline: November 30, 2011.

Stewardship Science Graduate Fellowship (SSGF), <http://www2.krellinst.org/csgf/index.shtml>

Synopsis of the Program: The Department of Energy National Nuclear Security Administration Stewardship Science Graduate Fellowship (DOE NNSA SSGF) program provides excellent financial benefits and professional development opportunities to students pursuing a Ph.D. in fields of study that solve complex science and engineering problems critical to stewardship science.

The fellowship program builds a community of talented and committed doctoral students, DOE NNSA SSGF alumni, DOE laboratory staff and university researchers who share a common desire to advance their science while impacting national defense. The friendships and connections formed while in the program continue to benefit alumni throughout their careers.

Funded by the Department of Energy's National Nuclear Security Administration, the DOE NNSA SSGF program trains scientists to meet U.S. workforce needs in advanced science and engineering.

Financial Benefits

- A yearly stipend of \$36,000
- Full tuition and required fees paid during the appointment period (at any accredited U.S. university)
- An annual \$1,000 academic allowance to be used for research or professional development expenses
- Payment of travel costs related to the annual fellowship conference, laboratory visits and other conferences
- Augmentation of the stipend during the 12-week research practicum at a DOE laboratory
- The potential to renew the fellowship for up to four years

Professional Development Benefits

- A twelve-week [practicum](#) (research experience) at one of the DOE national defense laboratories – Lawrence Livermore National Laboratory, Los Alamos National Laboratory or Sandia National Laboratories
- The option to participate in a second research practicum at a different DOE laboratory
- An annual DOE NNSA SSGF [conference](#) for fellows, university and DOE staff, held each summer in Washington, D.C.

- The opportunity to be part of a larger [community](#) that understands and appreciates the role that stewardship science plays across a variety of science and engineering disciplines
- Opportunities to attend and publish research results at other conferences

Application Deadline: January 4, 2012

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OPPORTUNITIES

Virginia Space Grant Consortium (VSGC)

<http://www.vsgc.odu.edu>

Synopsis of the Program: Virginia Space Grant Consortium awards over \$325,000 in scholarships and fellowships to students attending Virginia Space Grant member institutions (College of William and Mary, Hampton University, Old Dominion University, University of Virginia, Virginia Tech, and Virginia Community Colleges) and majoring in a science, technology, engineering, or math (STEM) fields. Research proposals from students majoring in any STEM field and working on a project that supports NASA's mission are welcomed. VSGC can assist students and faculty in identifying research projects and connecting to NASA.

The Graduate STEM Research Fellowship Program provides \$5,000 in support to graduate students actively engaged in a research project with a faculty mentor. The Graduate Fellowship is add-on support for students and is renewable for one year.

Application Deadline: February 10, 2012

FOUNDATION OPPORTUNITIES

Ford Foundation: Diversity Fellowships

<http://sites.nationalacademies.org/PGA/FordFellowships/index.htm>

Synopsis of the Program: Through its Fellowship Programs, the Ford Foundation seeks to increase the diversity of the nation's college and university faculties by increasing their ethnic and racial diversity, to maximize the educational benefits of diversity, and to increase the number of professors who can and will use diversity as a resource for enriching the education of all students.

Eligibility to apply for a Ford fellowship is limited to:

- All citizens or nationals of the United States regardless of race, national origin, religion, gender, age, disability, or sexual orientation,
- Individuals with evidence of superior academic achievement (such as grade point average, class rank, honors or other designations),
- Individuals committed to a career in teaching and research at the college or university level.

For information regarding level-specific eligibility requirements, stipends, and other program information for each of the three levels of the Fellowship program, please access the fact sheet for the program level of your interest, pre-doctoral, dissertation or postdoctoral.

Application Deadlines:

- 2012 Pre-doctoral Fellowship application submission deadline is **November 14, 2011**
- 2012 Dissertation and Postdoctoral Fellowship application submission deadline is **November 17, 2011**
- 2012 Supporting Document receipt deadline (all fellowship levels) is **January 6, 2012**

Alfred P. Sloan Foundation Minority PhD Program

<http://www.nacme.org/sloan/Sloan.aspx?pageid=31>

Synopsis of the Program: The Alfred P. Sloan Foundation's Minority Ph.D. Program has two components. The Ph.D. component offers substantial scholarship support to underrepresented minority students who are beginning their doctoral work in engineering, natural science and mathematics. The smaller Feeder component offers underrepresented minority B.S. or M.S. students access to select faculty and departments that have demonstrated success in sending their students on to doctoral programs.

Sloan and the student's home department work together to guarantee you financial support as long as you are making satisfactory progress toward your degree. Beyond the monetary assistance, you receive the mentoring and guidance that often spells the difference between beginning and completing a degree.

To become a Sloan Scholar, you must apply to and be accepted in a recognized program supported by the Alfred P. Sloan Foundation. Scholars are selected based on their application, faculty recommendation, appropriate field of study, and financial need. Awards are made on a rolling basis.

The United Negro College Fund and the Merck Company Foundation

<http://umsi.uncf.org/ApplyOnline/GraduateInstructions/tabid/211/Default.aspx>

Synopsis of the Program: *The UNCF/Merck Graduate Science Research Dissertation Fellowships* are intended to support African American graduate students as they complete coursework, conduct research, and prepare the dissertation required for the doctoral degree in the life or physical sciences, biomedical research and engineering.

AWARD DESCRIPTION, Awards up to \$53,500. At least 12 Graduate Science Research Dissertation Fellowship awards will be made in 2011. Each award is up to a maximum of \$53,500 and consists of a Fellowship Stipend of up to \$43,500 for the award recipient and a Research Grant of up to \$10,000. For administrative purposes, the awards will be made to the institution with which each award recipient is affiliated. Only institutions in the United States are eligible. As the awards are intended to be used to support graduate student stipends and research, no part of the awards may be used for indirect costs. Awards begin no earlier than September 1, 2011.

Synopsis of the Program: *The UNCF/Merck Postdoctoral Science Research Fellowships* are intended to provide support to African American post-graduates to obtain postdoctoral training or continue to conduct postdoctoral, pre-professional research projects.

AWARD DESCRIPTION, Awards up to \$92,000. At least 10 UNCF/Merck Postdoctoral Science Research Fellowship awards will be made in 2012. Each award is up to a maximum of \$92,000 and consists of a Fellowship Stipend of up to \$77,000 for the award recipient and a Research Grant of up to \$15,000. For administrative purposes, the awards will be made to the institutions with which the award recipients are affiliated. Only institutions in the United States are eligible. As the awards are intended to be used to support the stipends and research of postdoctoral fellows, no part of the awards may be used for indirect costs. Awards will begin no earlier than September 1, 2012.

II. Grant Writing Resources

PhD.org – Grant Writing Skills: this web page contains links to many different grant writing resources, including further information about NIH, DARPA and NSF.

<http://www.phds.org/career-guide/essential-skills/grant-writing/>

National Science Foundation

NSF's Grant Preparation Guide: http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_index.jsp

NSF Proposal Tips Article:

http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/2007_07_27/carecredit_a0700108

National Institutes of Health

NIH "All About Grants Tutorials": <http://www.niaid.nih.gov/researchfunding/grant/Pages/aag.aspx>

NIH Grant Review Process Videos (YouTube):

<http://cms.csr.nih.gov/ResourcesforApplicants/InsidetheNIHGrantReviewProcessVideo.htm>

Proposal Preparation Tips & Definitions:

- CSU Writing Guide: Engineering Proposals <http://writing.colostate.edu/guides/documents/proposal/>
- Advice on Writing Proposals to the National Science Foundation, Carnegie Mellon University: <http://www.cs.cmu.edu/~sfinger/advice/advice.html>
- U. Pittsburgh Office of Research: Links to Proposal Guides for PBS, EPA, NIH, NSF, SSR, & General Guides <http://www.pitt.edu/~offres/proposal/propwriting/websites.html>

Additional Web and Print Resources:

- University of Wisconsin Madison, Grants Information Center. [Proposal Writing: Web Sites](#)
- University of Wisconsin Madison, Grants Information Center. [Proposal Writing: Selected Books](#)