Faculty Early Career Development (CAREER) Program

Program Solicitation – NSF 11-690

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http://www.nsf.gov/career
Support for New Investigators

• All NSF programs support new investigators as part of the regular (“core”) research competitions.

• About 2/3rds of new investigators are supported by the “core” research programs.

• Some Directorates have special programs for new investigators with attention to broadening participation (e.g., BIO Research Initiation Awards, BRIGE-Broadening Participation Initiation Grants in Engineering)

• Faculty Early-Career Development (CAREER) Program
  – Most prestigious awards to help a junior faculty member develop activities that can effectively integrate research and education within the context of his/her organization.
Goals of the CAREER Program

• Provide stable support for five years (≥400K in most Directorates, BIO and OPP are ≥500K) to allow the career development of outstanding new teacher-scholars in the context of the mission of their organization.

• Build a foundation for a lifetime of integrated contributions to research and education.

• Provide incentives to Universities to value the integration of research and education.

• Increase participation of those traditionally underrepresented in science and engineering.
CAREER is NSF wide

• The program started in 1996
• All Directorates/Offices participate in the program
• More than 200 Programs across NSF have reviewed CAREER proposals over the years
• More than 7,000 CAREER awards have been made over the years
• NSF Presidential Early-Career Awards in Science and Engineering (PECASE) are selected out of the pool of CAREER awardees
Investigator Eligibility Criteria

• Hold a doctoral degree in a field supported by NSF by proposal deadline
• Be untenured by Oct 1st following proposal deadline
• Be employed in a tenure-track (or equivalent) position at an eligible institution as an Assistant Professor (by Oct 1st following deadline)
• Have not previously received a CAREER award
• Have not had more than two CAREER proposals reviewed
• Untenured Associate Professors are NOT eligible
Institutional Eligibility

• Academic institutions in the U.S., its territories or possessions, and the Commonwealth of Puerto Rico that award degrees in fields supported by NSF.

• Non-profit, non-degree-granting organizations such as museums, observatories or research labs may also be eligible to submit proposals, if the eligibility requirements of the PI's position are satisfied.

• NSF encourages proposals from different institutional types, including Minority Serving and Undergraduate Institutions.
CAREER varies across NSF

• Number of submitted CAREER proposals vary widely across NSF

• Review and Funding methods vary according to Directorate and Division practices

• Many CAREER proposals compete with other research proposals in the most appropriate research program

• CAREER Coordinating Committee is made up of members from the different Directorates/Offices – We are the liaison between the programs and the senior management at NSF
Merit Review of CAREERs

• Ad hoc + Panel (with other proposals in the Program – most of GEO (ATM uses ad hoc only), BIO, and SBE
• Mostly dedicated CAREER Panels – ENG, CISE, EHR, OCI
• MPS varies by Division:
  – AST – Panel only
  – CHE, DMR – Mix of ad hoc and panels (check your program)
  – DMS – mostly panels (2 programs use ad hoc only)
Success Rates and Expectations

• CAREER proposals are submitted to a disciplinary unit or program
• They are reviewed according to the relevant Program guidelines - Talk to Program Officer or Division Contact for more information (http://www.nsf.gov/crssprgm/career/contacts.jsp)
• Make sure to check on typical award sizes in your program
• Ask about expectations for scope of research and education plans
• Assessment of Departmental Letter (2 pages) is part of the review criteria for CAREER
• Funding rates follows trend for regular proposals in the program of interest
Proposals Awarded

BIO  CISE  ENG  GEO  MPS  SBE  EHR
Is CAREER the right program for you?

- Can you think of a proposal that is appropriate for NSF with research and education activities that are innovative and ambitious?
- Is your Department/Organization supportive?
- Are you seriously committed to the goals of CAREER?
- Are you at the right stage in your career?
- Would like to be considered for the Presidential Early Career Awards for Scientists and Engineers (PECASE), if eligible?
- Have you discussed your ideas with mentors, fellows, program officers?
What should be in a CAREER proposal?

• A compelling research plan
• Innovative but doable education plan
• A plan for the effective integration of both sets of activities (evaluation plan is a big plus)

Education activities – curriculum, pedagogy, outreach, mentoring at any level, majors and non-majors, teacher preparation or enhancement, K-12 students, and/or the general public.
CAREER Education Plan

• Activities should go beyond what is expected from any Assistant Professor in your field
• Workload should not be unreasonable
• Should be informed by what has been successful in the past - intellectual merit of the education component
• Should have a plan for assessing the success of the education program
• Check with your Program Officer or search the abstracts on the web
Integration of Research and Education

How will your research impact your education goals and how will your education activities feed back into your research?

• Involving others (graduate, undergraduates, K-12, high school teachers, public) in your research using new tools, laboratory methods, field components, web outreach, cyber networks, etc...

• Partnering with those in other communities, especially those traditionally underrepresented in Sciences and Engineering

• Bringing the excitement of your research topics to help in the education of others

• Searching for new methods to deliver your research results to a broader audience than those in the immediate research community

• Using the broader community to gather data for your scientific pursuits (“citizen science”)
CAREER personnel and budgets

• No co-principal investigators or other senior staff are allowed
• Consultants, sub-awards are allowed (no senior personnel costs in sub-awards)
• Some programs will support buy out of academic year time for teaching intensive institutions (check with your Program Officer)
• International activities are encouraged and may be supported by the Office of International Science and Engineering (OISE)
• Some Directorates prefer making more awards but closer to the 400 K minimum (or 500K in BIO and OPP).
Departmental Letter (2 pages)

• Support for the PIs proposed CAREER research and education activities

• Description of how the PIs career goals and responsibilities mesh with that of the organization and department

• Commitment to the professional development of the PI with mentoring and whatever is needed to forward the PIs efforts to integrate research and education

• Verification that the PI is eligible for the CAREER program
Traits of Successful CAREER proposals

• CAREER proposals should match the expectations in the disciplinary programs in terms of research and education - This is a highly competitive program!

• Written with peer reviewers (Ad Hoc and/or Panel) in mind - **Ask your Program Officer** who will be assessing your proposal

• Appropriate scope of education and research activities. It is a 5-year plan, not your whole life

• Goes outside the education box of regular research proposals in your field

• Strikes a balance between doable research activities and more risky pursuits
PECASE: Presidential Early-Career Awards for Science and Engineers

- **PECASE Eligibility** - Be a US Citizen or US Permanent Resident by the time of nomination to the White House’s Office of Science and Technology Policy
- 20 Nominees for NSF PECASE every year from the pool of recent CAREER awardees
- Number of nominees per Directorate is a function of the number of proposals submitted to the program for each Directorate
PECASE: Presidential Early-Career Awards for Science and Engineers (Dec. 2010)
The CAREER website – www.nsf.gov/career

- Latest Program Solicitation - NSF 11-690
- Frequently Asked Questions - NSF 11-038
- CAREER Directorate/Division Contacts
- Link to recent awards
- Link to PECASE awards
- Next Deadlines
  - July 25, 2011 - BIO, CISE, EHR, OCI
  - July 26, 2011 - ENG
  - July 27, 2011 - GEO, MPS, SBE, OPP