



Faculty Early Career Development (CAREER) Program

Program Solicitation – NSF 17-537

<https://www.nsf.gov/pubs/2017/nsf17537/nsf17537.htm>

FAQ – NSF 17-050

<https://www.nsf.gov/pubs/2017/nsf17050/nsf17050.jsp#q2>

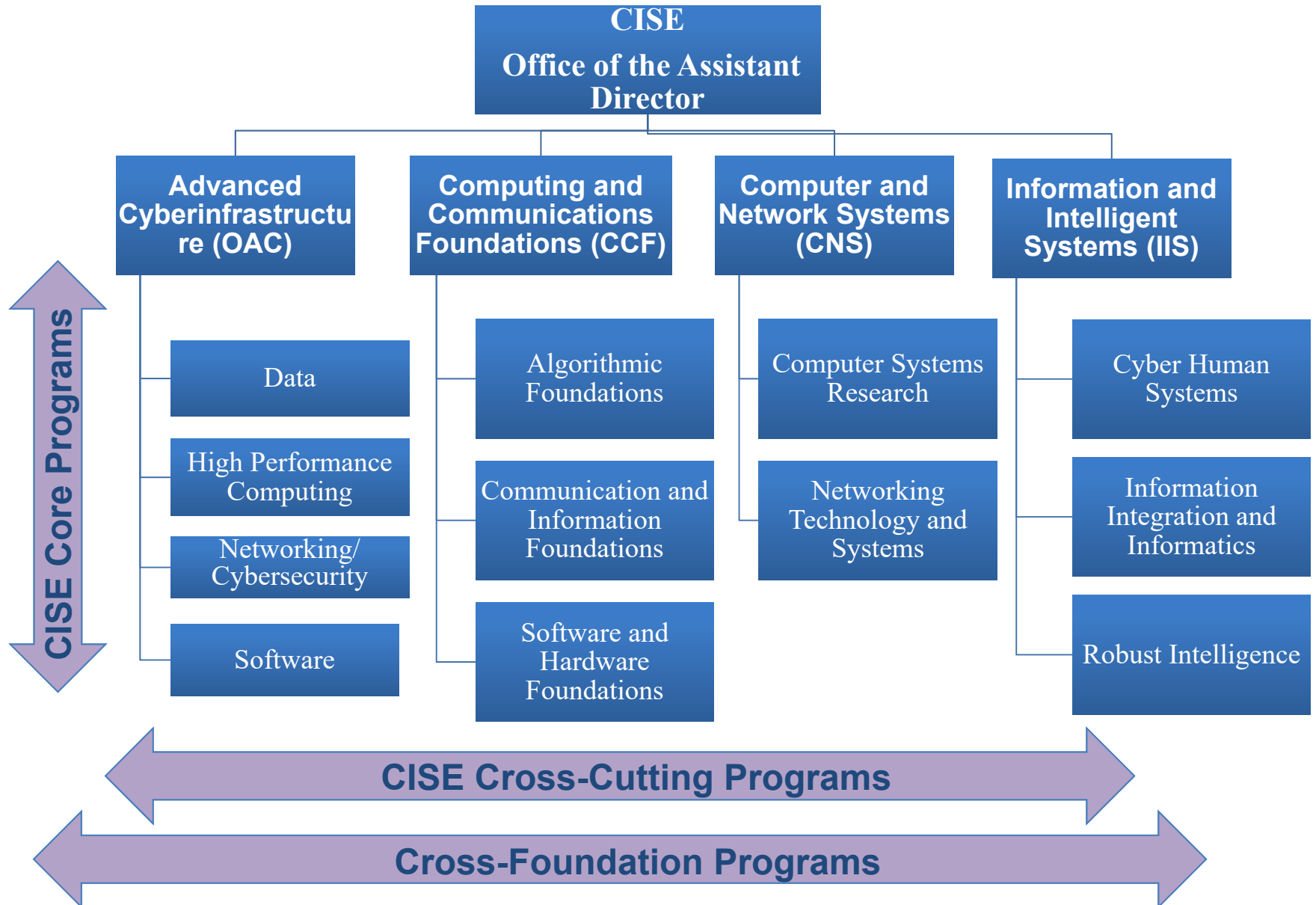
CAREER Proposal Writing Workshop
Mimi McClure, NSF

***March 2018

The solicitation has not yet been updated for next year. Thought the dates may seem outdated, this is the most current information at this time.***



CISE Organization and Core Research Programs





NSF Faculty Early-Career Development (**CAREER**) Program

Most prestigious award 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 (\geq \$400K in most Directorates, BIO and PLR are \geq \$500K)
- 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 for Scientists and Engineers (PECASE) are selected from the pool of CAREER awards



Faculty Early Career Development (CAREER) Program (NSF 17-537)



Next Deadlines:

- July 19, 2017 – BIO, CISE, EHR
- July 20, 2017 – ENG
- July 21, 2017 – GEO, MPS, SBE

Future Years:

- Third Wed, Thursday, Friday of July

IMPORTANT INFORMATION AND REVISION NOTES

- Eligibility requirements have been revised to clarify the required early-career status of applicants.
- Support for senior personnel other than the PI that is commensurate with a limited collaborative role in the project is now allowed in the budget of the proposal or of a sub recipient.



CAREER Investigator Eligibility

- Hold a doctoral degree in a field supported by NSF by proposal deadline
- Be employed in a tenure-track (**or equivalent**) position at an eligible institution as an Assistant Professor (by October 1 following deadline)
- Have educational responsibilities at the eligible institution
- Have not previously received a CAREER award
- Have not had more than two CAREER proposals reviewed



Tenure-Track Equivalency

- The employee has a continuing appointment that is expected to last the five years of a CAREER grant;
- The appointment has substantial research *and* educational responsibilities;
- The proposed project relates to the employee's career goals and job responsibilities as well as to the mission of the department or organization.

The Departmental Letter must affirm that the investigator's appointment is at an early-career level equivalent to pre-tenure status, and the Departmental Letter must clearly and convincingly demonstrate how the faculty member's appointment satisfies all the above requirements of tenure-track equivalency.



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

- Numbers of submitted CAREER proposals vary widely across NSF
- Review and funding methods vary according to Directorate and Division practices
- CAREER proposals compete with other research proposals in the most appropriate research program



Merit Review of CAREERs

- **CISE**, EHR, ENG: Mostly dedicated CAREER Panels
- BIO, SBE and most of GEO: Ad hoc + Panel (ATM uses ad hoc only)
- MPS: varies by Division

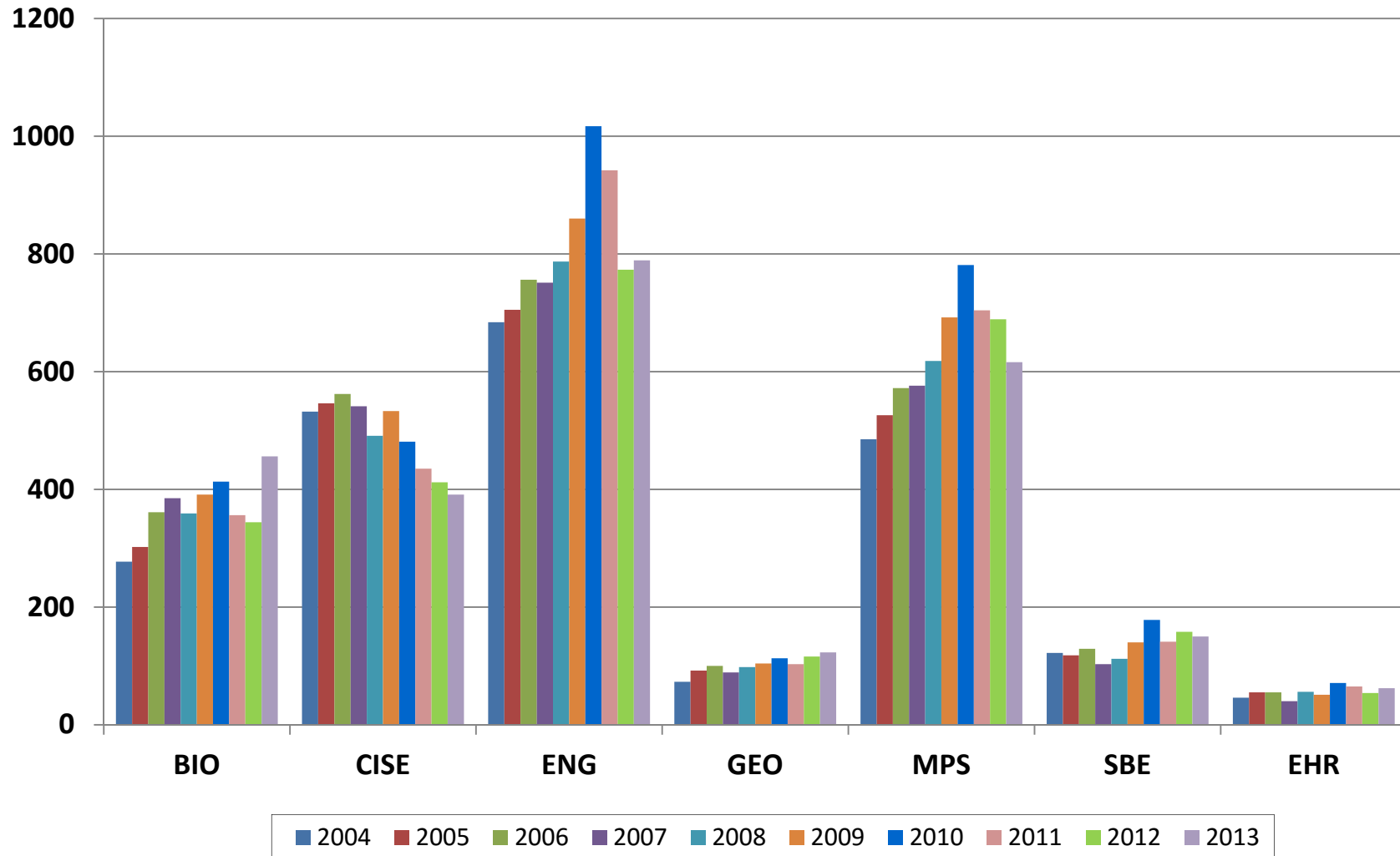


Expectations

- 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
[\(<http://www.nsf.gov/crssprgm/career/contacts.jsp>\)](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

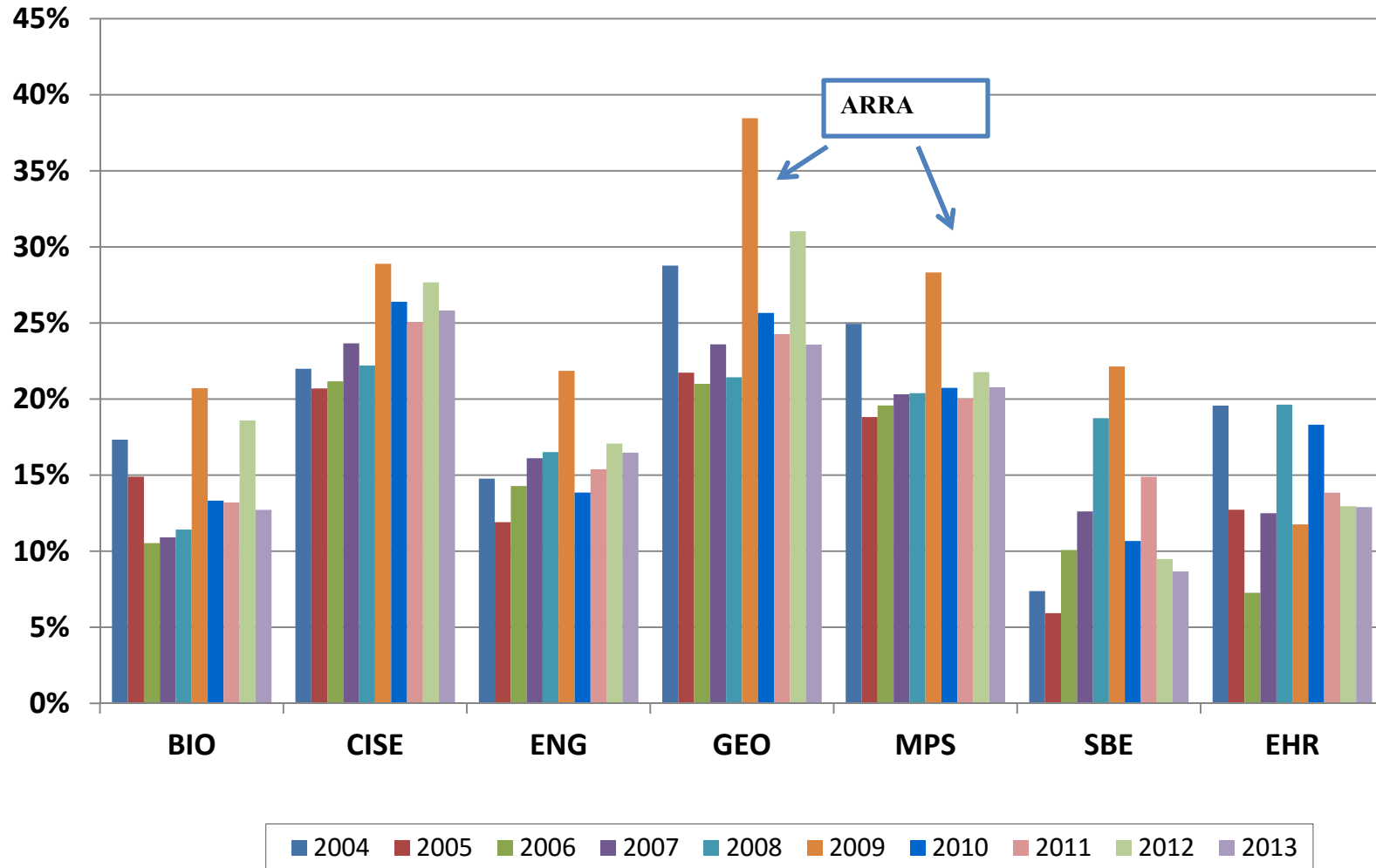


All CAREER Proposals Submitted





CAREER Program Funding Rate by Directorate





Are you ready for CAREER?

- Can you think of a proposal that is appropriate for NSF with research and education activities that are innovative, ambitious and consistent with a five year duration?
- Is your Department/Organization supportive?
- Are you committed to the goals of CAREER?
- Are you at the right stage in your career?
- Have you discussed your ideas with mentors, program officers, and other appropriate individuals?



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



CAREER Education Plan

- **Education activities** – e.g. curriculum, pedagogy, outreach, mentoring at any level, majors and non-majors, teacher preparation or enhancement, K-12 students, and/or the general public.
- Activities should **go beyond** what is expected from any Assistant Professor in your field
- 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



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 science 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 and analyze data for your scientific pursuits (“citizen science”)



CAREER Personnel and Budgets

- No co-principal investigators are allowed
- Consultants and senior personnel costs are allowed in sub-awards **commensurate with a limited collaborative role in the project NEW!!!**
- Some programs will support buy out of academic year time for teaching-intensive institutions (check with your Program Officer)
- Support for the education plan may be requested
- International activities are encouraged and may be supported by the Office of International Science and Engineering (OISE)



Letter(s) of Collaboration

- **Project Description or Facilities, Equipment and Other Resources must document the nature of all project collaborations, such as:**
 - Intellectual contributions to the project
 - Permission to access a site, use instrumentation or facility
 - Offer to furnish samples / materials for research
 - Logistical support / evaluation services
 - Mentoring of U.S. students at a foreign site
- **Letter should contain a single-sentence statement of collaboration:**
 - “If the proposal submitted by Dr. [name of the PI] entitled [proposal title] is selected for funding by the NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description.”
 - **Must NOT recommend or endorse PI or project**



Departmental Letter (2 pages)

- Support for the PI's proposed CAREER research and education activities
- Relationship between the PI's career goals and job responsibilities and that of the department
- Commitment to the professional development of the PI with mentoring and support for the PI's efforts to integrate research and education
- Verification that the PI is eligible for the CAREER program
- Demonstrate how the faculty member's appointment satisfies all the requirements of tenure-track equivalency (if applicable)



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** what types of reviewers 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 Scientists and Engineers

- **PECASE Eligibility** - Be a U.S. Citizen or Permanent Resident by the time of agency nomination
- Nomination by agency, not application by individuals
- 20 Nominees from NSF 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

Please ask me in the Q & A about what is needed for
PECASE!



PECASE: Presidential Early Career Awards for Scientists and Engineers





CAREER Award Supplement Opportunities



Career-Life Balance Initiative (CLB) Supplement

- Encourages career-life balance opportunities such as flexible start dates for NSF awards
- NSF also invites the submission of supplemental funding requests to support additional personnel (e.g., research technicians or equivalent) to sustain research when PIs are on family leave.
- Up to 3 months of salary support may be requested (for a maximum of \$12,000 in salary compensation) through the CAREER program.
- For additional information, please contact the appropriate Directorate or Divisional representative identified on the CAREER webpage at: <http://www.nsf.gov/crssprgm/career/contacts.jsp>.



Research Opportunities in Europe for NSF CAREER Awardees - Supplement

- Agreement between NSF and the European Union (EU)
- Signed on July 13, 2012; update in February 2015.
- Enables CAREER awardees to pursue research collaboration with European colleagues supported through EU-funded European Research Council (ERC) grants.
- ERC Executive Agency (ERCEA) identifies ERC-funded research groups who wish to host CAREER awardees for research visits of up to one year within their ERC funding.
- In general, the European hosts will provide living expenses during the visit and NSF will provide travel support



Recap

- A good mentor
- A good idea
- Convincing preliminary results
- A solid 3 year plan (core goals)
- Convincing out-year plans (stretch goals)
- A compelling beginning – hook – reviewers have to want to read the rest
- Clear writing style with impeccable spelling and grammar
- **NO JARGON!** Absolutely No Jargon, buzzwords, trendy junk



Recap

- Meaningful title and key words
- Easy to see diagrams with an explanation below that is extremely readable and clear.
- Minimal formulas
- An education plan that is more than your day job.
- If K-12 outreach is planned make sure you are already working with an educator and write it into the grant
- If you haven't done it, don't try to fake it. CAREER reviewers are seasoned veterans.

The devil is in the details



Talk to Your Program Director

- Know your division, program, and Program Director
- Talk to your Program Director
 - Send an email with a 1 page overview of your idea
 - Do not send multiple emails to multiple Program Directors
 - If you want to communicate with more than 1 PD send 1 email and address to both so that they may talk to each other
 - Ask for a good time to have a short (15 to 20 minutes MAX) phone conversation
 - Have a list of questions specific to your research idea and/or the CAREER program written down
 - How do I get funded is not a good question

READ THE SOLICITATION



The CAREER website – www.nsf.gov/career

- Latest Program Solicitation - NSF 17-537
- Frequently Asked Questions (for submission years 2015 and 2016) - NSF 15-057
- CAREER Directorate/Division Contacts
- Link to PECASE awards
- Next Deadlines for 2017 and will remain the same for 2018 unless the solicitation is updated:
 - July 19 - BIO, CISE (OAC, CCF, CNS, IIS), EHR
 - July 20 - ENG
 - July 21 - GEO, MPS, SBE



Follow-up Questions?

