

National Science Foundation  
America COMPETES Act Public Law 110-69, Title VII, Sec. 7008

# Post-Doctoral Mentoring Plans

In reference to the America COMPETES Act, The [National Science Foundation](#) has adopted a new requirement for proposals submitted on or after January 5, 2009.

(a) MENTORING.—The Director shall require that all grant applications that include funding to support postdoctoral researchers include a description of the mentoring activities that will be provided for such individuals, and shall ensure that this part of the application is evaluated under the Foundation's broader impacts merit review criterion. Mentoring activities may include career counseling, training in preparing grant applications, guidance on ways to improve teaching skills, and training in research ethics.

(b) REPORTS.—The Director shall require that annual reports and the final report for research grants that include funding to support postdocs include a description of the mentoring activities provided to such researchers.

## DOES THIS AFFECT ME?

- This affects any UWM Principal Investigator that will submit a proposal to the NSF that requests funding for a postdoctoral researcher (postdoc).

## HOW?

- Any NSF proposal that requests funding for a postdoc should include a one-page plan that outlines how, as the project PI, you will mentor your postdoc. This one-page plan should be attached in the Supplementary Documents section of Fastlane.
- Any successful NSF proposal that was submitted after January 5, 2009 that includes funding to a postdoc will need to provide a description of mentoring activities included in the annual reports done via Fastlane. This includes any postdocs that were not named at the time of proposal or award.

## WHY DO I HAVE TO DO THIS?

- If your proposal requests funding for a Postdoc and you do not include this information, **your proposal will be returned without review from NSF.**

## HOW DO I DEVELOP A MENTORING PLAN?

- Focus on what you want to accomplish: assisting your postdoc with professional development and ultimately a successful career.
- There is no required format aside from a one-page limit and the regular Fastlane margin and font restrictions. However, you should include:
  - Information about how you will determine mutual expectations and goals between yourself and your postdoc

- How you will mentor your postdoc in relevant areas, such as career counseling; research; preparation of proposals, publications and presentations; & teaching and mentoring skills
- Visit the [National Postdoctoral Association](#) for information about how to write a plan
- Sample plan, adapted from a successful NSF proposal by Prof. Marius Schmidt, Physics. **Please note that this sample is a general plan by design, and any plan that you develop should be specific to your team, department, and project.**

#### MENTORING POST-DOCTORAL RESEARCHERS

When a postdoctoral researcher starts in the PI's lab, the PI will ask the individual to write a *research and career* plan that lists scientific and professional goals, *milestones* and an approximate time frame when these goals should be reached. This plan will be discussed not only with the PI but also with close collaborators. It will be revisited and revised together with the post-doc at regular time intervals, for instance every six months. The plan will be assessed according to the three specific *key criteria* listed below.

**1. Science.** *Weekly meetings* will provide the opportunity to report progress or problems with research and receive advice and directions to proceed. The postdoctoral researcher will be *responsible* for planning and execution of the research projects dedicated to him/her in the PI's lab. The post-doc will be asked to *publish* results in a timely fashion. Assistance by the PI on manuscript preparation and submission to a suitable journal is self-evident. Successful projects will also be presented at *meetings and conferences* adding to the visibility of the post-doc's research. Post-docs are expected to participate in *group meetings* and in the department's activities as well as in the *weekly seminars* in other departments. That will keep them literate with the newest publications and provide opportunity to meet with other faculty and researchers on campus.

**2. Networking.** Postdoctoral researchers will be brought into contact with collaborators in various departments. This will add to their existing *network* of colleagues and co-workers. *National and international* meetings and conferences provide further prime opportunities to expand this network. The post-doc will be expected to *lead a small team* consisting mainly of grad-students and undergraduate researchers and help them to successfully conclude their projects. In return, the post-doc will *gain leading skills* as well as *teaching experience*.

**3. Independence.** Grant writing skills will be developed by encouraging post-docs to apply to national *post-doctoral funding opportunities*. Based on performance, the PI will write *letters of recommendation* and will encourage applications to independent research positions nationwide as well as to the University of Wisconsin system with its more than 30 campuses. It will be communicated to the post-doc that it is in the PI's own interest that successful post-docs *remain* future collaborators as *independent* researchers.

### MENTORING ACTIVITIES

Use the following ideas to formulate your mentoring plan.

#### The Basics

- Your postdoc should do a self-assessment
  - Include milestones, career goals, interests
- Develop activities for your postdoc

- Postdoctoral grants, research, writing, teaching, mentoring graduate and undergraduate students
- Set goals and meet regularly to assess the progress toward these goals
- Provide regular feedback and/or evaluations

### **Professional Development**

- Teach and Mentor
  - Language barrier? Encourage your postdoctoral researcher to contact the [ESL Programs Office](#) to take a class so that they can better communicate. **Please note that ESL classes require a tuition fee. Classes offered include non-credit Oral Skills (12 weeks); credit ESL Writing & Editing (16 weeks); non-credit Intensive English (one-month sessions; daily class meeting).**
  - Visit the [Center for Instructional and Professional Development](#) for professional development ideas
  - Develop teaching and mentoring skills using the [Learning Technology Center](#)
  - Offer guidance on how to teach and/or mentor grad students and undergrad students
- Network
  - Encourage your postdoc to join professional societies or attend their meetings
  - Help them make connections to others in a variety of disciplines.
- Train
  - Offer training on core skills like grant writing and preparing grant proposals
  - Ensure that your postdoc is familiar with various training on the ethical and responsible conduct of research
  - Offer equipment and/or lab training and experience
  - Encourage continuing education like workshops, discussion series, seminars, and auditing classes
- Research
  - Offer guidance on collaboration skills
  - Help develop research ideas
  - Help with the publishing process
  - Have your postdoc present research findings within your department

### **Career Development**

- Set career goals
  - Get a feel for where they want to go, and the timeline in which they want to do so
  - Use the [Career Development Center](#) at UWM
- Network
  - Encourage conference attendance
  - Introduce them to colleagues within and outside their disciplines, who have similar or complimentary interests
  - Encourage them to join national societies

- Job Search
  - Assist with curriculum vitae or resume development
  - Rehearse interviews
  - Communicate about job openings that you know of
  - Be a reference