

## **MENTORING AND TRAINING OF POSTDOCTORAL RESEARCHERS**

Mentoring and other forms of professional development and guidance are associated with successful outcomes for graduate students and postdocs. Effective January 2009, NSF requires all proposals that include a postdoctoral researcher on the budget to include a description of the mentoring activities that are planned for that postdoc.

While Mentoring Plans should be tailored to the individual postdoc and specific educational discipline, UNLV provides a number of ongoing activities that can be included in the plan. Those opportunities include:

- The Office of Research Integrity
  - Responsible Conduct of Research (RCR) training
- College of Sciences
  - MentorNet Participation – an electronic mentoring network
- The Office of Sponsored Programs
  - Seminars, workshops and individual consultations on identifying research funding opportunities, proposal development, and other compliance related issues

The following are additional resources that may prove helpful when developing the individual Mentoring Plan.

### **Literature and Resources on Mentoring of Postdocs**

- National Academy of Sciences Report, “Enhancing the Postdoctoral Experience for Scientist and Engineers: A guide for Postdoctoral Scholars, Advisers, Institutions, Funding Organizations and Disciplinary Societies ([http://books.nap.edu/catalog.php?record\\_id=9831#toc](http://books.nap.edu/catalog.php?record_id=9831#toc))
- Learning to Mentor (<http://www.nature.com/naturejobs/2005/050721/full/nj7049-436a.html>)
- The Federation of American Societies for Experimental Biology (FASEB) Individual Development Plan for Postdoctoral Fellows (<http://opa.faseb.org/pdf/idp.pdf>)

### **Sample Postdoctoral Mentoring Plan**

[Note: The following mentoring plan is provided as an example. However, the specific mentoring plan a PI develops should fit the project, the university’s goals, and the needs of the postdoctoral researcher(s) to be mentored.]

One postdoctoral researcher will be funded on this project. The postdoctoral researcher’s development will be enhanced through a program of structured mentoring activities. The goal of the mentoring program will be to provide the skills, knowledge and experience to prepare the postdoctoral researcher to excel in his/her career path. To accomplish this goal, the mentoring plan will follow the guidance of the National Academies of Science and Engineering on how to enhance the postdoctoral experience, by providing a structured mentoring plan, career planning assistance, and opportunities to learn a number

of career skills such as writing grant proposals, teaching students, writing articles for publication and communication skills [1]. Specific elements of the mentoring plan will include:

- Working with the postdoctoral researcher to establish and implement an Individual Development Plan based on the process developed by the FASEB [2]
- Seminars, workshops and individual consultations on how to identify research funding opportunities and write competitive proposals, offered by the Office of Sponsored Programs
- Participation in seminars and workshops on teaching and learning, as well as access to a teaching mentoring program
- Opportunities to network with visiting scholars who are leaders in our field by having lunch or dinner with them when they participate in the school's visiting speaker series
- Participation in a journal club for graduate students and postdocs, in which participants meet weekly, along with a faculty facilitator, to discuss and critique recent journal articles in the field and to discuss how to write and submit journal articles
- Travel to at least two conferences each year [name conferences here] (travel funds are included in the budget), with the goal that the postdoctoral fellow present a poster or paper at the conference
- Participation in a monthly brown bag lunch series for postdoctoral fellows and graduate students in our school, in which speakers will be invited to discuss subjects related to career development such as how to apply for a faculty position, career paths outside of academia, tips for negotiating salary and start-up funds, how to plan and independent research agenda, etc.
- Participation in the PI's weekly research group meetings, in which members will be expected to present their research regularly, and feedback and coaching will be given to help all members to develop their communication and presentation skills
- Opportunities to gain increasing levels of experience as a mentor for undergraduate and then graduate students in the PI's research group.

Success of this mentoring plan will be assessed by tracking the progress of the postdoctoral fellow through his/her Individual Development Plan, interviews of the postdoctoral fellow to assess satisfaction with the mentoring program, and tracking of the postdoctoral fellow's progress toward his/her career goals after finishing the postdoc.

[1] National Academy of Science, National Academy of Engineering, Institute of Medicine, "Enhancing the Postdoctoral Experience for Scientists and Engineers: A Guide for Postdoctoral Scholars, Advisers, Institutions, Funding Organizations, and Disciplinary Societies," National Academies Press, 2000.

[2] The Federation of American Societies for Experimental Biology, "Individual Development Plan for Postdoctoral Fellows," <http://www.faseb.org/>