

Postdoctoral Researcher Mentoring Plan

There are a number of key elements to the mentoring plan that are in place for postdoctoral researchers. With respect to the present proposal, the postdoctoral researcher will be mentored in several specific ways. Most of these have been used by [REDACTED] in the past, with the almost 30 postdoctorals he has mentored to date. Those previous postdoctorals have been successful in pursuing a variety of careers in industry and academia. One of the important aspects of successful mentoring is recognition that the typical postdoctoral researcher is at the start of his/her career and needs help in becoming oriented to the duties and responsibilities of his/her new status. The weekly research group meetings facilitate this maturation process. In the early part of the postdoctoral's tenure these meetings will provide a venue for becoming acquainted with a wide variety of students, both graduate and undergraduate, from whom the postdoctoral can learn a number of laboratory skills and begin to develop mentoring skills of his/her own. Thus, the postdoctoral, early on begins to have a greater appreciation for the instructional needs of others as well as a better appreciation of his/her research and instructional strengths and weaknesses.

It is part of the plan for postdoctorals that, from the outset, they will be encouraged to participate in undergraduate and graduate student presentations and to critically evaluate the quality of these. At the same time, they will develop a further appreciation for the technical aspects of such presentations and learn what works best, as well as what doesn't work. Over the two or more year period that postdoctorals are group members, they will be asked to give a number of their own research presentations. These experiences, combined with participation in local, national, and international scientific meetings are intended to insure that the postdoctoral will emerge from these experiences with good experience and an excellent appreciation of the technical requirements of successful presentations.

The research group also participates in detailed development of research proposals and papers as well as discussions of subsequent reviews of each. Later, as the postdoctoral researcher matures through group participation, he/she will be expected to take an increasing leadership role and develop the necessary skills for effectiveness in writing and defending papers and proposals. Ethical discussions form an integral part of these meetings and include such topics as the appropriate criteria for authorship of papers and authorship order. Importantly, there will be in depth discussions with both the group and the mentor about ethical practices concerning review of confidential materials (e.g. research proposals, research publications, faculty evaluations, etc.). The University of Arkansas is a participant in the well-known Collaborative Institutional Training Initiative (CITI) program for ethics education, which is especially appropriate for Postdoctoral Researchers. Procedures for registration and login will be provided to the Postdoctoral Researcher and CITI course progress monitored by the mentor.

Experience in effective collaboration with a wide variety of researchers from diverse backgrounds will be made possible through the grant and will include researchers in industry ([REDACTED]) and academia ([REDACTED]) that form an integral part of the proposed research. In addition, the postdoctoral will have the opportunity to participate in Development of Instructional Materials to be submitted to the [REDACTED], headquartered at the [REDACTED]. The postdoctoral will also interact with researchers at the [REDACTED], with guidance from [REDACTED]. Discussions with the mentor regarding possible career choices will be held on an on going basis, with the desired objective of helping the postdoctoral researcher make the best possible choice for their own individual interests and strengths. The final outcome of the progressively phased program described above is for the postdoctoral researcher to emerge as an ethical independent researcher capable of bringing his/her talents to whatever career is chosen.