

## Postdoctoral Mentoring Plan

If your NSF proposal will support postdoctoral researchers, a Postdoctoral Mentoring Plan is required. The [NSF PAPPG](#) instructions for this document are as follows:

*Each proposal that requests funding to support postdoctoral researchers must upload under "Mentoring Plan" in the supplementary documentation section of Research.gov, a description of the mentoring activities that will be provided for such individuals. **In no more than one page**, the mentoring plan must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, regardless of whether they reside at the submitting organization, any subrecipient organization, or at any organization participating in a simultaneously submitted collaborative proposal. Proposers are advised that the mentoring plan must not be used to circumvent the 15-page Project Description limitation. Mentoring activities provided to postdoctoral researchers supported on the project will be evaluated under the Broader Impacts review criterion.*

*Examples of mentoring activities include but are not limited to: career counseling; training in preparation of proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices.*

Below are elements that could be included in a postdoctoral mentoring plan. Please consider which of these may be applicable to your grant, and modify as appropriate. **Note that the Postdoctoral Mentoring Plan is limited to 1 page.**

- **Number and location of postdocs:** How many postdocs will be supported by this grant? If this is a multi-institution proposal, specify how many postdocs will be supported at each institution.
- **What work will the postdocs perform:** Describe the work that postdocs will perform. In addition to research, will they be involved with, e.g. outreach projects or undergraduate mentoring?
- **Use of Individual Development Plans:** Use of Individual Development Plans (IDPs) is becoming standard practice. Describe how you will work with postdocs to create and periodically update their IDP. Additional IDP resources are presented at the end of this document.
- **Use of joint mentors:** Will postdocs be jointly mentored by more than one faculty member? If this is an interdisciplinary grant, you might consider whether postdocs would benefit from joint mentoring.
- **Networking and travel opportunities:** Have you budgeted funds for the postdoc(s) to travel to conferences, visit collaborators, etc.? Do you have contacts with industry or national lab partners that could benefit your postdocs?
- **Assessment of Postdoctoral Mentoring Plan:** How will you assess whether your postdoctoral mentoring plan is successful?
- **Professional Development Opportunities:** What additional professional development can you offer to postdocs? Will there be opportunities to learn grant writing skills, project management skills, leadership and laboratory management skills, teaching and mentoring skills, speaking and networking skills? Possible activities include: taking grant writing workshops; taking leadership and mentoring courses; mentoring graduate or undergraduate lab members; organizing journal clubs or symposia; developing formal class lectures.
- **Descriptions of resources available to postdocs:** Describe what resources are available at UCSB and at partner institutions for postdocs. For example, CSEP and the Graduate Division at UCSB offer professional development opportunities for postdocs as well as grad students. Many universities have campus-wide postdoctoral support offices that offer resources to postdocs.

### **Example Postdoctoral Mentoring Plan:**

This grant will hire two postdoctoral researchers to work on this project. The PIs are committed to providing the skills, knowledge and experience to prepare its postdoctoral researchers to excel in their chosen career path. Postdocs will be fully engaged in all aspects of the work performed, including: designing and conducting experiments, interpreting results, mentoring graduate and undergraduate students, writing articles for publication, presenting at conferences, choosing and inviting seminar speakers, and participating in outreach activities.

**Individual Development Plans:** When postdoctoral associates begin their appointment, faculty will meet individually with their postdoctoral researchers to discuss in depth the postdoc's career goals. Based on these discussions, the faculty members and postdocs will work together to develop Individual Development Plans (IDPs). These plans will outline a strategy for the postdoc's research and professional development activities and will identify specific goals and set mutual expectations. In addition to regular group meetings, the faculty members and postdoc will meet on a monthly basis to assess the postdoc's progress, identify new professional development activities, and revise the individual development plan as appropriate.

**Professional Development Resources:** The UCSB Graduate Division provides extensive resources for both graduate students and postdocs, including career development workshops covering topics such as networking, teaching, mentoring, writing effective resumes, finding research funding, grant writing, and finding jobs outside of academia. The Center for Science and Engineering Partnerships (CSEP) hosts a Professional Development Series for graduate students and postdocs on topics such as basic skills (e.g. writing, time management), communication skills (e.g. science presentation, teaching, grant writing), and career skills (e.g. networking, interview skills, developing collaborations). Additionally, UCSB's Office of Research hosts seminars and workshops related to grant writing and finding funding that are open to all researchers. Postdocs will be encouraged to take advantage of these resources.

**Leadership and Mentorship Training:** Postdocs will be encouraged to participate in a summer mentor training series to improve their mentorship skills and design mentored research projects for undergraduate researchers. They will also be encouraged to participate in outreach activities for undergraduate and K-12 students.

**Networking and Travel Opportunities:** Funds will be budgeted for postdocs to travel to at least one scientific conference per year. Postdocs will have additional opportunities to network with academic, industry, governmental, and non-governmental organization partners at our annual retreat.

**Additional Resources:** UCSB is a member of the National Postdoctoral Association, a national organization that provides resources and advocacy for postdoctoral scholars, and UCSB postdocs may sign up as Affiliate Members. The workplace interests of postdoctoral researchers at UCSB and across the University of California system are protected by UAW Local 581, guaranteeing minimum wages and annual raise rates, comprehensive health and benefit plans, AD&D and short-term disability insurance, and voluntary long-term disability insurance.

**Assessment:** Success of the Postdoctoral Mentoring Plan will be assessed by monitoring the personal progress of each postdoctoral researcher toward their stated goals, interviews to assess satisfaction with the mentoring program, and tracking of the postdoctoral fellow's progress toward his/her career goals after finishing the postdoctoral appointment.

## Online Resources for Postdoctoral Researchers:

### **APA Resource for Individual Development Plans** (<https://www.apa.org/education-career/guide/individual-development-plan>)

APA's resource draws upon existing IDP and career resources found at numerous institutions, scientific societies, and federal agencies. It does not provide a specific form, but instead guides you through the necessary steps for taking charge of your professional and career development.

### **AAAS myIDP Resource** (<https://myidp.sciencecareers.org/>)

The Individual Development Plan (IDP) concept is commonly used in industry to help employees define and pursue their career goals. In 2003, the Federation of American Societies for Experimental Biology (FASEB) proposed an IDP framework for postdoctoral fellows in the sciences. Expanding on that framework, myIDP is a unique, web-based career-planning tool tailored to meet the needs of PhD students and postdocs in the sciences.

### **National Postdoctoral Association** (<https://www.nationalpostdoc.org/>)

The NPA was established in 2002 with the goal of fostering improvements to the postdoctoral situation in the United States. The NPA's goal is to improve the postdoctoral experience by supporting a culture of inclusive connection. UCSB postdocs can sign up for an affiliate membership under UCSB's institutional membership to gain access to NPA's online resources.

### **HHMI Handbook: Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty** (<https://www.hhmi.org/science-education/programs/resources/making-right-moves>)

Based on workshops co-sponsored by the Burroughs Wellcome Fund and HHMI, this book is a collection of practical advice and experiences from seasoned biomedical investigators and includes chapters on laboratory leadership, getting funded, project management, and teaching and course design.

## Resources for Mentorship Training:

### National Research Mentoring Network (NRMN) (<https://nrmnet.net/>)

The National Research Mentoring Network (NRMN) is part of the Diversity Program Consortium (DPC), a trans-NIH program funded by the NIH Common Fund and administered by NIGMS. NRMN is developing a national network of mentors and mentees from all biomedical disciplines relevant to the NIH mission to provide mentorship, professional development, mentor/mentee training, networking and resources to individuals from the undergraduate to early career faculty levels.

Tools and resources offered via NRMN's website include:

- [MyNRMN](#), which is a social networking platform for students and researchers across the biomedical, behavioral, social, and clinical sciences to connect with one another
- [MyMentor](#), which is an online mentorship platform, enabling mentors and mentees to connect one-on-one in a guided setting
- Mentorship Training: online mentorship training for [mentors](#) and/or [mentees](#). Mentor training follows the *Entering Mentoring* curricula series. Mentee training combines materials from the *Entering Research* series for undergraduates with the *Entering Mentoring* series.

### Center for the Improvement of Mentored Experiences in Research (CIMER)

(<https://cimerproject.org/>)

CIMER was founded in 2015 at the UW Madison and is led by Dr. Christine Pfund. The focus of CIMER is on the development, implementation, and evaluation of mentor and mentee training using theoretically grounded, evidence-based, and culturally-responsive training interventions and investigations. CIMER offers customized research mentor training workshops led by CIMER Master Facilitators. CIMER's training is based on the [Entering Mentoring](#) curriculum, developed by Dr. Pfund (first published in 2005); and the [Entering Research](#) curriculum, developed by Dr. Janet Branchaw, also at UW Madison (first published in 2010). CIMER also trains individuals to become mentor training facilitators through its Facilitator workshops, and maintains a database of trained facilitators throughout the country.

The CIMER website offers the complete curriculum of its mentor and mentee training freely online:

<https://www.cimerprojectportal.org/#/completeCurricula/mentor>

### University of Minnesota CTSI Mentoring Resources:

The Clinical and Translational Science Institute (CTSI) at the University of Minnesota have developed a series of self-paced, online, professional development modules designed to prepare faculty from a range of disciplines to be effective research mentors. These training modules are freely available to the public via the creation of a guest account to the UM Training Hub.

Program description and instructions: <https://www.ctsi.umn.edu/education-and-training/mentoring/mentor-training>

CTSI modules in the Training Hub: [https://z.umn.edu/ctsi\\_mentoring](https://z.umn.edu/ctsi_mentoring)

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