**Postdoctoral Research Mentoring Plan**

***\*Do not forget to remove instructional text, which is in red font, and revise as needed.***

*NSF Instructions take from PAPPG 18-1:* [*https://www.nsf.gov/pubs/policydocs/pappg18\_1/nsf18\_1.pdf*](https://www.nsf.gov/pubs/policydocs/pappg18_1/nsf18_1.pdf)

*Postdoctoral Researcher Mentoring Plan. Each proposal that requests funding to support postdoctoral researchers must upload under “Mentoring Plan” in the supplementary documentation section of FastLane, 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. See Chapter II.D.3 for additional information on collaborative proposals. 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 grant 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.*

*Note: In situations where a postdoctoral researcher is listed in Section A of the NSF Budget, and is functioning in a Senior Personnel capacity (i.e., responsible for the scientific or technical direction of the project), a mentoring plan is not required.*

*Note: For collaborative proposals, the Postdoctoral Research Mentoring Plan is to be included in the proposal of the primary (lead) institution, even if the postdoctoral personnel are working at the non-lead institution.*

The Henry Samueli School of Engineering (HSSoE) is committed to assisting postdoctoral scholars in their career development and will make use of resources, including those at partner institutions, established specifically to provide postdoctoral scholars and mentors access to compact agreements, evaluation forms, and other materials. At UCI, for example, (<http://www.grad.uci.edu/postdoctoral-scholars/index.html>) the PD site includes forms, campus policies, employment and benefits information, and links to still other resources. The postdoctoral scholar will also be given the opportunity to be introduced to Dr. Mary Frances Ypma-Wong who leads UCI Office of Postdoctoral Affairs. Through this office, the post-doctoral fellow will be able to take advantage of key resources for post-doctoral fellows at UCI. These include: a post-doctoral orientation program, support in developing her/his individual development plan (IDP), professional development events provided by the UCI Graduate Professional Success (GPS) as well as the UCI Postdoctoral Association, and opportunities to engage in public communication of science and engineering. Beyond these resources, depending on the career aspirations of the post-doctoral fellow, s/he will be introduced to UCI Applied Innovation – a center for entrepreneurship and innovation.

The investigators of this project commit to devoting significant time to mentoring postdoctoral researchers (“postdocs”), including 1) an initial interview to assess career goals and developmental needs, 2) a written compact outlining duties, responsibilities and goals, 3) weekly meetings to discuss progress toward project goals and personal goals, and 4) quarterly written and filed evaluations by both the postdoctoral researcher and the PI.

The PI and Co-PIs will provide the postdocs on this project with personalized mentoring and assistance in the following areas:

**Scientific and Engineering Skills:** By the nature of this project, the postdocs will not only advance the skills he/she has been preparing to date, but also will gain skills in related disciplines. The postdocs will interact with other research groups in the HSSoE and with industry. The scope of the project ensures that the postdocs will gain experience in planning and executing large projects in a multi-institutional setting, in advanced research methods, in lab safety protocols, in data management, in the operation of scientific instruments, and in reporting research results.

**Scientific communication (e.g., Publications and Presentations):** Each PI will assist the postdocs in making scientific results intelligible and interesting for various audiences, and in improving their written and oral communication skills. The postdocs will interact with other scholars and staff editors in drafting proposals and reports. The postdocs will be required to make practice presentations and receive feedback prior to actual events. The postdocs will be sole authors or co-authors of at least two publications derived from this research and will have a substantial role in writing and editing the work.

**Teaching:** The postdocs will teach modules or guest lecture in courses taught by the PI or Co-PIs. The PIs will attend these lectures and provide detailed feedback on the successes and possible improvements. The postdoc will mentor graduate and undergraduate students in the PIs’ lab and will be encouraged to participate in activities that address mentoring of students from underrepresented groups.

**Professional Networking and Service:** The PIs will provide opportunities for the postdocs to interact with other professors, postdocs, and students at seminars, lab meetings, and departmental social events. The postdocs will be encouraged to join professional associations, and mentors will provide for post docs to: attend at one or more professional conferences, take the lead in organizing outside seminar(s), participate in organizing conference session(s), identify and contact colleagues in industry, government and academe for collaborative research and service opportunities.

**Career Planning/Counseling:** The PIs will assist the postdocs with networking, career planning and job application skills. Discussions will include the merits of alternative career paths and the steps required. Specifically, the PIs will help the postdocs with searching for positions, preparing job application materials (e.g. letters and CVs), preparing for interviews, and negotiating job offers.

**Ethics:** The PIs will provide the postdoc with resources and mentoring on the Responsible Conduct of Research, using the (federally compliant) resources available at the collaborating universities. The postdocs will take the on-line RCR training.

**Self-assessment:** The postdocs will conduct a skills self-assessment using the National Postdoctoral Association Competency Checklist, available on the UCI PD site. The postdocs will meet with the PIs to discuss the results of their self-assessment and to develop projects that will allow them to improve specific skills. At the end of the position, the postdocs and PIs will complete a **final evaluation**. Through regular and continuing discussions, the PI will also develop a deeper understanding of the career and life objectives, intrinsic motivations, talents, skills, and strengths of the post-doctoral fellow in order to provide relevant and effective guidance to the Postdoctoral Scholar.

**Training in Preparation of Grant Proposals:** The investigators will work closely with the postdocs to identify new and continuing directions for the current work via identification of appropriate funding mechanisms and by involving them in the grant preparation process.