



STEP I

Self Assessment Guidelines

This self assessment comprises the five general categories adapted from the National Postdoctoral Association's Postdoctoral Core Competency Toolkit (<http://www.nationalpostdoc.org/competencies>) to assist postdoctoral scholars in developing and acquiring these five competencies:

- 1) Discipline-Specific Knowledge
- 2) Research Skill Development
- 3) Communication Skills
- 4) Professionalism/Leadership/Management
- 5) Responsible Conduct of Research

The *Self Assessment*

The questions under each heading may not be universally relevant to all postdocs or specific disciplines of research. They have been included here merely as a starting point to help develop the self assessment based of your own skills and experiences, and ultimately to provide a concrete, directed basis to foster discussion with your PI toward the further advancement and development of you as a postdoc. You are strongly encouraged to edit and/or insert other questions that may fall under each of these categories that would be more reflective of the demands and challenges specific to your field of research.

1) Discipline-Specific knowledge

Postdoctoral scholars are expected to demonstrate a knowledge base of established and evolving information and research within their discipline and, as applicable, to their specific area of research. Fluency in the language as well as proficiency with the techniques of a specific discipline or other disciplines with which it may cross provides the framework in which multidisciplinary studies can be undertaken. A broad knowledge base also provides an excellent foundation for those individuals who pursue non-bench related professions.

- What areas of research specific knowledge have you mastered?
- What specific areas of research knowledge do you need to acquire to fulfill your current research goals, and to advance other lab projects?
- What areas of knowledge would you like to become more familiar with in order to advance your future research objectives (e.g. improve your understanding of a disease you wish to research after your postdoc)?



2) Research Skill Development

Postdoctoral scholars are expected to have the fundamental knowledge necessary to identify important gaps in their field, to be capable of designing sound experimental protocols, and to obtain competency in performing the techniques necessary to produce valuable new research findings or to report/teach these findings.

- What experimental techniques/data analysis methods/theoretical modeling methods have you mastered?
- What techniques do you need to acquire to move current research projects forward (including laboratory safety, management, etc)?
- What skills would help advance/support other lab projects, expand or advance future research goals?

3) Communication Skills

Postdoctoral scholars are expected to demonstrate interpersonal and other communication skills that enable them to communicate both technically and effectively with colleagues at all levels. They must also be prepared to communicate with students, media, and society at large. They need to develop writing, speaking, and listening skills.

Written

- What writing experience do you presently have (e.g. publication record, fellowship/grant writing...)?
- Do you feel that more experience and/or training in scientific writing will help you become more time-efficient or prolific (courses/seminars on the publication process and effective fellowship/grant writing)?
- What are your goals for written publications during your postdoc (i.e. number and type of papers, book chapter, conference proceedings)?

Spoken

- What is your experience in oral presentations (including within group meetings, conferences, long (15-30 min), or short (0.5-5 min) formats)?
- What opportunities to present in various formats and settings are currently available to improve your speaking skills?
- What types of oral presentations would you like to make as a postdoc to improve your spoken communication skills (e.g. conference talk, talk to a lay audience, talk to undergraduates)?

Teaching

- What is the current level of teaching experience (settings, preparation, etc...)?
- What priority do you put on teaching in the context of your current long term goals?
- What teaching experience, if any, are you hoping to acquire while a postdoc?



4) Professionalism/Leadership/Management

One's professionalism is relevant in different contexts that govern and define the potential interactions the scholar engages with his/her environment. Postdoctoral scholars are expected to demonstrate an understanding of the importance of collaboration within teams and organizations and an understanding of the skills and techniques needed to facilitate effective teamwork. Additionally, they are expected to effectively manage day to day operations as appropriate within their fields and learn to manage junior students beginning their work in the lab

- What experiences do you bring with you in terms of independent research?
- What opportunities exist in your current position to pursue an independent research direction in the context of current responsibilities? Are you given time to pursue your own research interests? Are you encouraged to apply for a personal fellowship or to help with grant writing?
- What experiences/opportunities do you have mentoring others in the context of research projects?
 - Lab/project management?
- What management/leadership goals do you have for your current position (e.g. lead a team of students in the lab on a specific project)?

5) Responsible Conduct of Research

Postdoctoral scholars are expected to make ethical and legal choices, develop appreciation for the range of accepted practices for conducting research, be familiar with the regulations, policies, statutes, and guidelines that govern the conduct of government-funded research, as appropriate, and be aware of the available tools and resources to which they can turn when ethical questions and concerns arise.

- What, if any, courses/training have you taken so far related to the Responsible Conduct of Research or Research Integrity?
- Have they addressed: (1) Conflicts of interest in academic industrial setting, (2) Data ownership and sharing, (3) Publication practices and authorship, (4) Identifying and addressing research misconduct, and if applicable: (5) Human or Animal research?
- What steps do you need to complete to become versed in the Responsible Conduct of Research (e.g. classes/seminars)?