



Mentoring a postdoc—the basics

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Whether you have recently been hired as a junior faculty member or as a staff scientist in a research lab, you are likely to want help pushing your ideas forward and making a name for yourself. An obvious way to get that help is to hire a postdoctoral researcher/fellow (postdoc). Assuming you can secure the necessary funding, and are lucky enough to identify and hire a reasonable candidate—do not waste your time imagining you will find a perfect one—you will wake up one morning and realize you are no longer just a scientist, but now also a manager. Regrettably, you have no experience as a manager, and that means you have not just hired a helper, but also, potentially, a serious drain on your time. What to do?

Expectations

No doubt it is lovely to have assistance. But in the form of a postdoc, assistance comes with the obligation to prepare your new associate to make the transition to working professional. The good news is that you recently succeeded in this endeavor yourself, and therefore the wisdom you have to share is demonstrably valid. But, what wisdom? Here are some ideas to impart to your new hire:

1. **Expectations are different** for a student as compared to a postdoc. Having earned a PhD, a postdoc should bring expertise and knowledge to you and your group. A student may look forward to hand-feeding from his or her thesis advisor. Not so a postdoc. A postdoctoral scientist should be competent enough to work independently, search the literature, to assimilate and evaluate published information, and to develop new ideas and methods. A postdoc should come to your lab or office not just seeking guidance, but as an intellectual equal, with papers you may have missed, with insights, and project ideas. You are the boss, but your postdoc cannot become an independent scientist without learning to act like one. A postdoc who expects hand-feeding should be disabused of the notion promptly and clearly.
2. **Bringing research ideas to fruition**, including writing up and publishing the results, is at the heart of the postdoc's job description. "Magic fingers" (for an experimentalist) or computational expertise (for a theorist) are highly desirable. But, you have hired a postdoc as your assistant, not as your technician or your servant! The goals of a postdoctoral sojourn are not only to develop new knowledge and share it with the community, but also to prepare the postdoc for a permanent research position. Accordingly, you must make certain your new assistant understands that his or her job is not just to get your equipment or your computer program running efficiently, but more importantly, to learn to formulate a research endeavor that will yield a new kernel of knowledge, one that will withstand peer review and be published. Many fresh postdocs will be excited about using the latest high-tech toys and fastest computers. Fewer will understand, without your pushing, that finishing projects in a timely manner is indispensable to finding a permanent position.
3. **Communicating effectively**, in writing and orally, is an essential skill if your postdoc is to land a job. Moreover, his or her success in finding a position will reflect well on you and your department, assuming it happens ... the opposite if it does not. Thus, you have a moral and a personal interest in teaching your new assistant communication skills and monitoring his or her progress. You cannot allow your postdoc to speak at a scientific conference, much less at a job interview without having first heard the talk yourself, preferably with other faculty, postdocs, and perhaps students present, and without the audience having subjected the presentation to incisive, constructive criticism. Your postdoc may end up embarrassed. There may even be tears. But, better all that happen at home, where it won't scuttle a promising job opportunity. You similarly must monitor what your postdoc plans to submit to a journal. Your name will most likely be on the manuscript. That is enough reason to check the reasoning, the grammar, and the writing style. It may be painful to have to go through numerous iterations of perfecting a text, the more so if your postdoc is not a native English speaker. But, you wanted the help. Now you must cheerfully accept the editorial duty as part of the price.
4. **Time is of the essence.** Typically, a postdoc is hired for two years, perhaps with an option to stay for a third. This means there is little time to waste. Just 18 months after arriving, the postdoc must have developed a "story" to tell, describing scientific achievements exciting enough to land a job. Accordingly, your postdoc should not be writing grant proposals, and should be discouraged from serving on one or

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another committee. He or she should be performing experiments or running computational simulations, compiling results, and writing interim reports for subsequent incorporation into journal articles. It would be a mistake for you to propose distractions from these efforts.

The relationship

You should not be surprised if your relationship with your postdoc is somewhat difficult. As a junior scientist, you are likely not much older than he or she. Your recent experience, in principle, enables you to offer valuable thoughts on transitioning to a permanent job. To you it is obvious that the postdoc needs to stop trying to perfect a piece of work at a certain point and write a paper. But, to your postdoc, you look like an older sibling, and not a desirable advisor.

Making matters worse, you are in a position of authority, and no one likes to be mentored by whoever holds the purse strings. Think back to your last years at home. Was your relationship with your parents easy? Or, were you perpetually annoyed by their seemingly gratuitous advice, hating that you were living on their money, champing at the bit to leave home and make your own way?

This analogy bears the seeds of a solution to the relationship issue. Whose advice would you take when you were about to leave home? Likely that of a treasured aunt or uncle, perhaps a former teacher, someone older and wiser, who knew you as well as anyone, whose advice was accordingly plausible and, importantly, who was not “the boss.” This recollection suggests that it might prove useful to ask

an older colleague to be available to your postdoc for counsel, to be there when your postdoc risks going off the rails.

It may even be worthwhile trying to set up a formal mentoring program at your institution or in your department. The idea would be to encourage each new postdoc explicitly to interview potential mentors from a list of colleagues willing to spend time with her or him, and thus to have someone available when the going gets rough. You may encounter some resistance or be ignored as you try to formalize mentoring. But, no department wants word to get out that working therein is a dead end. Thus, every department has an interest in seeing its postdocs succeed. Accordingly, you may get credit for your leadership—not a bad thing.

Remember

You stand to gain a lot from having post-doctoral associates: new ideas, faster acquisition of data, an extra pair of hands, advertising of your successes to the community, research collaborators, and friends for life. But, these potential gains come with responsibilities. From day one, or even before, you should be thinking

about how to foster your new postdoc’s success. Is the joint project you propose one that will bear fruit by the time he or she needs to go out into the job market? Will he or she have published? Will your postdoc be capable of credible oral presentations? You can neither be your postdoc’s nanny, nor “just let things go.” It may entail a difficult balancing act, but to reap the rewards of having hired a postdoc, you must remain engaged, be firm but kind, ready to discuss problems and progress—with your junior collaborator’s eventual success in landing a permanent research position ever in your thinking. □



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