How to Choose a Postdoc Advisor and How to Compete Successfully for a Position in His/Her Laboratory
10/31/14

1. When and where to start.

Start the process two years before your estimated thesis defense date. For the first six months you will be reading the literature and selecting people who are doing cutting-edge research in areas that you're excited about, employing techniques that you want to add to your arsenal. The number of people you select to pursue depends on your own personal circumstances, but a list of about 20 investigators might be a good place to start. Besides reading, go to meetings. Ask questions at talks given by potential postdoc advisers. If there's an opportunity to meet with them at meals or during other activities at the meetings, do so. Be sure you get a chance to present your own data, perhaps as a poster. Invite any potential postdoc adviser to visit your poster because you "would very much value their comments." When you're on your own campus, if you read a publication by a potential postdoc adviser and you feel you have a useful insight, write to that person and articulate it. If you have a clear first choice of someone you're interested in as a potential postdoc adviser, you may want to ask your PhD advisor to invite that person to give a seminar. I'm aware of quite a few postdoctoral positions that were offered by seminar speakers to students they met during their visit. You'll also want to try to find out what the potential postdoc adviser is like. Do they do a good job of helping their trainees find a job? Are they fair, honest, accessible, and supportive? Ask faculty in your department who have contacts at the university where they work to find out what the environment is like in that laboratory. Remember you want to work for someone who is not only an outstanding researcher, but also a kind, supportive individual who will have an interest in helping you develop your career. Eventually you can cull your list to 6-12 individuals when you send out applications 15-12 months before your defense.

2. What criteria do you use in selecting potential postdoc advisors?

For your PhD research, it is very important that you work with someone who is doing excellent science and who can provide the kind of training you need to develop into a competent investigator. Your PhD advisor does not have to be at the top of his/her field, but it is most helpful if you receive postdoctoral training in the laboratory of an acknowledged leader in their field of research. This is because they will have the name recognition and contacts to be able to help you find a job when you've finished your training. This is not a hard and fast rule and you may want to include a few up-and-coming younger investigators who you have good reason to believe are going to be major contributors in the future, but they should at least be at prestigious universities. Try to include some HHMI Investigators, members of the National Academy of Science, and maybe a Nobel Laureate on your list. Unless you plan on doing two postdocs, avoid non-US labs if you want to pursue a career in the US.

3. First contact with your potential postdoc advisers.

Each individual letter you write needs to accomplish the following 4 things. First you need to convey to the addressee that you are thoroughly familiar with their work and that you understand and appreciate the importance of the approach they are taking. Second, you need to convey to the addressee that you fully understand how you would benefit from further training in their laboratory. Third, you need to suggest how you might be able to contribute to their future efforts. Finally, you need to seek perfection in crafting the letter, asking for help from faculty and fellow students. In the letter, you will also mention your background, including who you've trained with, and a brief one or two sentence summary of each of your major accomplishments in the laboratory. You need to include an estimate of when you will complete your degree requirements. State that you will have three reference letters sent separately. You don't want
to wait for them to be requested because if they are in hand, they will be read, and you can assume that they will help persuade the recipient to accept you. The cover letter should be limited to two pages. Besides the letter, provide a copy of your updated CV (which includes your home phone, cell phone and work phone numbers) and a carefully prepared summary of unpublished results limited to about 3 pages. You should also include copies of published papers, manuscripts submitted, and abstracts published at meetings attended.

4. Reasons you should never offer as justification for delaying making plans for the next step in your career.

(a) "I don't want to start a search for a postdoc position until I've published all my data because no one will accept me without published papers." This is not true. It is, of course, helpful to have published papers to include in the packet you send your potential postdoc adviser, but it is not essential. The scientist considering your request for a position will look at your summary of unpublished results, and may even talk to your PhD advisor to find out how skilled you are in the laboratory. If this generates sufficient interest, you will probably be invited for an interview during which your future mentor will learn more about what you've done and will get a feel for how well you think on your feet. Experienced researchers know that some types of projects can only be published when everything comes together at the end of a graduate student's thesis research.

(b) "I am so busy with my thesis research work I do not have time to look now. Besides, I'm sure my thesis advisor doesn't want me to do anything that will take time away from my conducting experiments." This also is not a valid reason. Your postdoctoral training will be a critical factor in your ability to pursue your career goals in academia or industry. Although you may feel overwhelmed with current commitments, you owe it to yourself to begin planning for the next stage in your training. You may be surprised at how sympathetic your thesis advisor is when you discuss taking time for reading in the area you may wish to pursue as postdoc, writing letters to leaders in that field, and hopefully traveling for job interviews and preparing postdoctoral fellowship applications.

(c) "I'm not certain when I will complete my degree, and I don't want to antagonize my future postdoc adviser by having to postpone my arrival date." This should not be a concern. First of all, there is nothing like having a tentative date for the start of your postdoctoral work to help you focus on completing your degree requirements. It's also likely to help your PhD advisor accept the fact that now that you're trained and productive you'll be moving on. Second, your future mentor knows all about the uncertainties of predicting the completion of a PhD thesis a year in advance. It's very likely that any experienced investigator will understand if you need to delay your arrival time by a matter of months.

5. Why the timeline suggested under item 1 is the minimum required for success.

As previously noted, securing the right position for postdoctoral training is one of the most important steps you will take in pursuing a successful research career. You need to devote the time necessary to become thoroughly familiar with the field and/or techniques in which you're interested in receiving further training, and you need to apply your full intellect to the task of selecting individuals who have the potential for making important discoveries in the future. If you can identify a handful of such individuals in the time specified above, while still moving your thesis research forward, it will be a considerable accomplishment. The personalized letters you write requesting a postdoctoral position should in the mail no later than one year (and preferably 15 months) before your estimated defense date. You may receive a variety of responses. You should be aware that all positions in highly desirable laboratories may be filled a year or more in advance. So, you might get a letter that says "I am interested in having you join my lab, but I do not have room for you on the start date you have requested. You may get a response that says "I would like you to join my lab, but only if you are able to secure a postdoctoral fellowship. I will help you develop the proposal and I suggest we submit applications to the following agencies..." Of course, you won't get such a reply if you write six months in advance of your proposed start date because the
preparation, review, and funding of postdoctoral fellowship applications takes more than six months. In the best of all worlds you may get a reply that says "I've looked over the materials you sent and have spoken to your thesis advisor. As a result, I'm very interested in pursuing your request for postdoctoral position in my laboratory. For that purpose, I suggest you visit us to give a seminar and meet the other members of our group." This last type of response represents a great opportunity which you need to take advantage of by very careful preparation.

7. Other approaches for finding a postdoctoral position.
I think a direct approach to someone you have very carefully selected is the best way to ensure a rewarding postdoctoral experience. However, there are other possible routes you may wish to consider especially if your initial attempts to secure a postdoctoral position were not successful. There are ads placed in scientific journals by individuals and by research institutions announcing the availability of postdoctoral positions. In the case of an institutional application, your file would be circulated to the staff and if one or more show interest in recruiting you, you would be invited for a visit to meet with those individuals. Also, at major scientific meetings there are often chances for people who are looking for a postdoctoral position to meet with investigators who are looking for postdocs.

Personally, I've never liked these alternative approaches to finding a postdoctoral position because you are basically allowing someone else to determine your future rather than going after exactly the right match.