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

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Richard Cross

Criteria to use in selecting a potential postdoc advisor

- He/she should be an acknowledged leader in a field of research you're interested in pursuing.
- As an acknowledged leader, he/she will be able to help you find a job when you've finished your training.
- You can include some up-and-coming younger investigators at prestigious universities on your list, but also include some HHMI investigators, members of the NAS and perhaps a Nobel Laureate.
- Unless you plan on doing two postdocs, avoid non-US labs.

What will make you an attractive candidate to a leading PI?

- The closer your area of research is to his/her the better.
- The closer your experimental skills are to those used or needed in his/her lab the better.
- The more impressive your thesis research accomplishments (publ or unpubl) the better.
- The better known your PhD advisor is for producing high-impact papers and well-trained scientists the better.
- Also, the better you interview, the greater your chances are of receiving an offer.
Timeline: Starting 2 yrs in Advance Of Defense (IAOD)

- Read the literature. Who’s doing the best work in areas you’re interested in. Begin to compile a list of about 20 investigators which you can later cull to 6-12 when you send out applications.
- Go to meetings. Ask questions at talks given by potential postdoc advisors. Join them for a meal or social activity. Tell them when you will be presenting your poster, inviting them to attend because you would “very much value their comments”. If any of their postdocs or graduate students are there, ask them what it’s like to work in that lab.

Timeline: Starting 2 yrs IAOD (Continued)

- If an early first choice emerges and you can’t arrange to meet him/her at a research conference, ask your PhD advisor if that person might be invited to your campus to give a seminar. If this happens, ask for some one-on-one time with the visitor. Many postdoctoral positions have been offered by seminar speakers to students they’ve met during a visit.

Timeline: 18 months IAOD

- Try to find out what it’s like to work for the scientists on your list of 20. Do they help their trainees find a job. Are they fair, honest, inspiring, accessible, and supportive?
- Ask faculty in your department who have contacts at the university where your future advisor works to find out what the environment is like in that laboratory. This will help narrow your list.
- Remember you want to work for someone who is not only an outstanding scientist, but also a kind, supportive individual who will have an interest in helping you develop your career.
Timeline: 15 months IAOD
GET VERY SERIOUS

- Immerse yourself in the literature. Narrow your list to 6 to 12 leading investigators to pursue who are doing cutting-edge research in exciting areas using techniques you want to add to your arsenal, and who will help you get a job.
- Compose a personalized letter to each that can be included in your postdoc application and mailed ASAP, but no later than 1 year IAOD.

Why do you need 15 months?

- 3 months to do focused reading, narrowing your search to 6-12 highly desirable potential mentors, writing each of them individual letters, while continuing to pay attention to your thesis research is a daunting task to accomplish in this amount of time.
- Mailing the applications 15-12 months IAOD barely allows enough time to prepare postdoc fellowship applications if you are asked to submit them as a condition for acceptance. Also, many prominent labs are filled a year or more in advance.
- It's your career, don't make excuses for delaying. (Top 3 list)

Invalid reason to delay #3

"I am so busy with my thesis research work I don't 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."

- You may be surprised at how supportive your current advisor is. Your postdoc training will be a critical factor in achieving your career goals. You owe it to yourself to take the time needed to read papers, write letters, interview, and prepare fellowship applications.
Invalid reason to delay #2

"I'm not certain when I will complete my degree, and I don't want to antagonize my future postdoc advisor by having to postpone my arrival date."

- There's nothing like having a tentative date for the start of your postdoc to help you focus on finishing your PhD work.
- Your future mentor knows all about the uncertainties of predicting the completion of a PhD thesis.

Invalid reason to delay #1

"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."

- Not true. Of course it's helpful to have pubs, but your future advisor will read your summary of unpublished research and perhaps talk to your current advisor. If there's sufficient interest, you will be invited for an interview.

Your postdoc application:
The cover letter

You need to accomplish 4 things in your initial letter to each potential postdoc advisor. The first 3 will require a different statement for each investigator contacted.
Your postdoc application:
The cover letter

1. You need to convey to each that you are thoroughly familiar with their work and that you understand and appreciate the importance of their approach and accomplishments. In other words, demonstrate that you have insights into the significance of their work.

Your postdoc application:
The cover letter

2. You need to convey to each that you understand how you would benefit from further training in their laboratory. What are your career goals and how will the knowledge and experience gained in their lab enable you to achieve those goals.

Your postdoc application:
The cover letter

3. You need to suggest how they might benefit from having you in their lab. What skills have you developed and what knowledge have you acquired in your training that would allow you to hit the ground running, and enable you to help move their program forward.
Your postdoc application:  
The cover letter

4. Finally, the letters need to demonstrate that you are organized and have excellent communication skills. Hence, they need to be very carefully polished. Ask faculty and fellow students to read your drafts and provide suggestions. Work on the letters until you can't think of a single word change that would improve it.

Your postdoc application:  
The cover letter

*Other information to include within the letter:*

- Mention your background, including schools attended and who you've trained with and when.
- A brief 1-2 sentence summary of each of your most important research accomplishments.
- Indicate when you estimate you will complete your degree requirements.
- State that you will have three reference letters sent directly. (Don't wait for them to be requested)

Your postdoc application

*Items to include in a mailing envelope with your cover letter (don't just email your appl):*

- A copy of your updated CV. Include home and cell phone numbers, and list your references with their contact info (in case your future advisor wants to phone them in addition to reading their recommendation letters).
- A carefully prepared summary of unpublished results. Limit to ~3 pages, but include diagrams.
- If applicable, copies of published papers, manuscripts submitted, and abstracts.

*If advisor gives approval*
Your golden opportunity:
The invitation to interview

- Prepare, prepare, prepare.
- Re-read your host's published work.
- Prepare to deliver the best seminar you have ever given. Practice in front of your lab group.
- Be prepared to answer all questions that may be asked about your thesis research.
- Prepare a list of questions to ask that are important to your future career development. Remember you are also interviewing your host.
- Ask about your schedule. Will you have one-on-one time with postdocs currently in the lab?

The Interview: What to achieve

- You want to convince your host: that you are intelligent, knowledgeable, ambitious, can think on your feet, that you have good communication skills, and that you're focused and hard working.
- That you have carefully considered what you will need to succeed in your future career.
- That you will be a pleasant, honest, helpful, and stimulating person to have in the lab.
- When you return home, if you do not already have an offer, write to thank your host for the opportunity to interview and express your interest in joining his/her lab.

Less desirable approaches

- Respond to an ad in a scientific journal placed by an individual or institution.
- At major scientific meetings such as ASBMB or FASEB, there are often chances to interview with investigators who are looking for postdoc's.
- The disadvantage of the 2 approaches listed above is that you are allowing someone else to determine your future rather than going after exactly the right match.
Avoid at all costs

You don't want to write a form letter addressed to "Dear Professor:" to be emailed to a thousand or more scientists asking for a postdoc position. You might falsely claim in the text "that you have read their papers and are very excited about the possibility of joining their lab", but this will be correctly interpreted by the reader to mean "I know nothing about what you're doing, but I'm very desperate". Believe me, no one worth working for will respond to such a letter. It will be transferred to trash without reply.

My concluding pep talk

- The right postdoc experience can set the stage for a highly successful and rewarding career in academia or industry.
- The longer you wait to start your search, the more doors will be closed to you.
- The logical extension of this is that if you procrastinate long enough, you will end up in a lab that has no chance of helping you land a good job when you finish your training.
- So, there's a lot to be done. Start early.