

ACADEMIC JOB SEARCH TIPS

Applications:

- How do you decide where to apply (what makes a particular place a good or bad fit)?

This is a very difficult question. On the one hand, don't limit yourself too much during the application process. On the other hand, I would tend to recommend not applying to places that you know you would never, ever accept a position at, but this is just me. At the end of the day, these people will be your colleagues, not to mention reviewing your manuscripts/grants, and writing tenure your tenure letters. You don't want to make enemies or leave hard feelings. My thought process when applying to schools was (in no particular order):

- 1) size of city (my husband is in industry, and needed to be able to find a job)
- 2) description of position (if my research vaguely fit, I applied)

- How do you decide when to apply (at the end of grad school, during your postdoc, at the end of postdoc)?

Again, very difficult. You need to be able to supply at least three very solid recommendation letters. All of these letters need to be able to say things like "she is a pioneer in her field" and "she has the breadth of skills required of a professor". If you can do this at the end of your PhD, then go for it. However, interacting with three professors at this level is difficult. This is where a post-doc can be helpful. (Additionally, it gives you the chance to go to as many conferences as is humanly possible and create your own network.)

- Is it essential that your research fit the exact field in the job advertisement?

No – but it should be vaguely related. Keep in mind a lot of the advertisements are extremely vaguely written: "hire in a field of nanotechnology". This doesn't mean just nano. Micro counts. Biotechnology also counts. Theory would also be fine. Also, look outside your home PhD department.

- What makes an application stand out (besides a million publications)?

Your recommendation letters are extremely important. If there is a particular school you really want – tell your recommendation letter writers. They may know someone at the school they can call. There is nothing a school hates more than interviewing someone that isn't really interested. There is nothing they like more than taking a second look at an application that they know is serious.

- How much detail is required in the research statement? Is it more important to build on research you obviously have the tools to accomplish or propose more creative ideas that you may not have much experience with? How long should it be?

Detail: the applications are read by a panel of professors. Some are in your field; some are not. Make sure that you explain your research field – i.e. give background. If the out of field profs don't know why/understand your research is

important, you are out. It is both important to build on your knowledge and propose creative ideas. It is bad to say you are going to come in and do something you have absolutely no background in. That is a recipe for disaster. But saying you will come in and put a new twist on something you have a background/foundation in is a good idea. This is where a postdoc could be helpful. Especially if the post-doc research is in a different area from your PhD research. You can combine the two fields. The length is dependent on the field. Engineering statements are usually 4 pages, including figures. And good figures are essential. (Chemistry and Biology statements are usually longer.)

- What happens to your application package once you apply for a job?

It goes into a pile. They usually wait until they have a certain number, then they begin reading them. Depending on the school, sometimes letters are requested at the same time, sometimes there is a pre-cut and then they request letters. (This is important – it is good to submit as early as possible. Do not wait until the deadline. I was interviewed at several schools before the submission deadline.) Occasionally, your packet is released to the department. Then they select between 3-5 candidates to interview. Sometimes there is a second round of interviews.

- Should you contact anyone in the department after submitting your application for follow-up – in a networking, informal way?

If you know someone already (it was your undergrad school, you have an existing collaboration), yes. If not, I'd say no. This is typically the job of your recommendation letter writers.

- What do search committees look for or avoid as they review applications?

How your research will compliment existing research in the department. Statements in the recommendation letters indicating that you are a “good person” – easy to work with. Remember, they are hiring you, potentially, forever. They don't want to hire someone who is a pain.

- How are the criteria different in evaluating a postdoctoral and a graduate student application?

When I hire someone into my group, I want someone who will work well in a group – but they will work on a project I determine – or an extension of an existing project that they are interested in, but they aren't defining their own field. In hiring a faculty member, it is important to hire someone who expanding the breadth of the department's research activity. Pretty much the exact opposite. The personality traits should be exactly the same – I want to hire a post-doc/grad student who works well with others. The difference between evaluating a graduate student's application vs. a post-doc's application, is that the post-doc should have more publications – all the publications from their PhD research should have come out. Additionally, they should have more experience mentoring, maybe have guest-taught a couple classes, and ideally, their research

background/skill set should be twice as large. Therefore, their applications are more critically evaluated.

Interviews:

- What should you expect from a phone interview and/or on-campus visit?

The phone interview basically determines if the on-campus visit happens. These usually happen for schools in “college towns”. They want to make sure that you were serious about applying to their school. They ask you lots of questions about why you applied to the school.

- What is a typical schedule for an on-campus interview?

These range a lot – 1 day to 3 days. They can involve teaching a class. They always involve giving a seminar (typically over your past research – think thesis defense). Sometimes involve giving a presentation over your future research plans. Involve meetings (30-45 minutes) from breakfast through dinner. Emphasis – plan to be exhausted, drink lots of coffee, yet have no time to go to the bathroom.

- How much detail should you be prepared to present in your private research seminar?

Infinite detail. Have back-up slides covering where you expect to get funding from – listing specific directorates at NSF, agencies/programs with NIH, DOD, DOE, etc. Have a figure which you would want for a start-up package, with justification (vague itemization: \$40k for a microscope, \$25k optical table, etc – you don't need manufacturers, but you should know what you want and numbers – this is something you should talk with your advisor about). And, in two interviews, I was asked to show syllabi of courses I might teach.

- Should you provide an equipment list or detailed budget during the interview if asked?

Yes – see above.

- What are illegal questions (pertaining to marital/family status, religion etc.)? How do you handle illegal questions if asked?

This is a very personal decision, but I chose to answer. Most (all) of the time the questions were asked because the school wanted to make accommodations if possible. For example, in one case, the school wanted to make sure my husband was interviewed if that was necessary. When I said he was in industry (in engineering), they had a Prof. which industry contacts in his field call him. I know other schools have official statements which say something along the lines of “please tell us if you and your spouse are both applying”. Also, at a lot of schools, I met with assistant female Profs who, instead of asking if I had kids/was planning on having kids, would just tell me that they had kids and would tell me the school's policy. So, that is another thing to keep in mind if it is a concern – typically, someone will tell you about childcare policies, tenure policies, etc.

- What is the most important thing to negotiate for during your interview – lab space, funding, student funding, etc.?

During the interview – you don't negotiate. You don't have the job; you haven't been offered the job; so you aren't in a position to negotiate anything during the interview. The biggest mistake I have heard any candidate making was asking about early tenure during the interview. If someone offers to talk about tenure, then follow the conversation. Or if someone brings up lab space, ask about it (typically, someone will offer to show you their lab space – or ask an Asst. Prof to show you their lab space – I love showing people my lab space, and every Asst. Prof I interviewed with loved showing me their lab space). But don't ever, ever negotiate during the interview process. Once the department has decided to make the offer, the chair will email/call you asking you what you want. Then you email a list detailing the things you want. Make sure it is detailed. Different things come out of different "pots" of money, and there may be more funding in one pot than in another. For example, I asked for 2 graduate students for 2 years and a cleanroom funding waiver for both students for 2 years. I got the student funding but not the cleanroom funding waiver – which was \$4,000 – because the cleanroom is operated at a university level.