BECOMING A POSTDOC

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PREPARING TO BECOME A POSTDOC

Do great science as a graduate student.

- Publish your work in visible journals.
- Try to finish up publications with your graduate mentor before moving on.

Become known in your department/institution as a graduate student.

- Seek out collaborations
- Take every opportunity you can to speak about your work at your own institution
- Seek out opportunities to interact with other grad students/postdocs/faculty in the department (for example, start a journal club on your research area of interest).

Become known in your field as a graduate student.

- Attend meetings—be brave and talk to PIs (particularly those you might be interested in doing a postdoc with). Try to attend some small conferences (such as Gordon conferences) where it’s easier to meet and interact with people.
- Take every opportunity you can to speak about your work or present your work as a poster at regional, national, and international meetings.
- Try to meet with/ have a meal with scientists that are visiting your department to give a talk, particularly those in your field.

Make the most out of interactions with your thesis committee.

- Look at each committee meeting not as an administrative hoop to jump through, but as an opportunity to 1) get good advice from your members and 2) show them why your project (and you) are so great.
- Set up meetings with your committee members between the required meetings as appropriate—you want to build a relationship over time.
- Doing the above will help you secure good recommendation letters that are not superficial but are based in a real understanding of you and your work.

Get teaching experience, particularly if you’re ultimately interested in teaching.

- Most graduate programs require graduate students to do some TAing.
- Whether or not you see yourself in a position that requires a lot of teaching in the future, being a good teacher will help you become better at presenting your own data, mentoring students and postdocs, interviewing for jobs, convincing agencies to fund you, etc.

APPLYING FOR A POSTDOC

Carefully consider what kind of job you want after your postdoc.

- Do you want to work at a Research University?
- Then you need to choose a lab that will allow you to publish multiple papers in competitive journals and will let you take some or all of your project with you to start your own lab.
- Do you want to work at a 4-year institution?
- Then you need to choose a lab that does research that could be done on a smaller budget and is not ultra-competitive because it will be hard for you to keep up with labs that have many grad students and postdocs working in them. In addition, you should try to find a lab where the advisor is OK with you taking time away from research to develop your teaching skills.
- Do you want to work in industry?
- Then you need to choose a lab that will give you the technical expertise/skills that will help you transition into industry. You also should try to make connections with scientists currently working in industry
- Do you want to go into another science-related field?
- Then you need to find out 1) whether a postdoc is required at all and 2) what kind of postdoc will help you be most competitive in that field. You also should try to make connections with people who are working in that field of interest.

Identify labs that interest you at different institutions.

- Read papers—think about whether you want to stay in the same general field or make a big change.
- Talk to your advisor and committee members
- Attend meetings and see which labs’ research excites you—take the opportunity to introduce yourself to PIs at conferences.
- Think about what areas of the country/world you want to live in during your postdoc years.
- Look for advertised positions—this approach could be most helpful if you need to be at a particular institution. Generally, however, you should let the science be your guide and contact potential mentors directly even if they have not advertised a position.
- Once you have developed a list, narrow it down by further reading, conversations with your advisor/committee members, etc. You can also seek out individuals that are alumni of the lab you are interested in to ask them about their experiences in the lab.

Contact potential postdoctoral mentors and arrange an interview.

- Send an e-mail to potential mentors (this used to be done by paper/snail mail, but most PIs I’ve talked to like/prefer receiving applications by e-mail).
- The main text of the e-mail should basically be a cover letter. Tell the potential postdoctoral mentor why you are interested in their work and what you can bring to the table (expertise you have developed as a grad student). If you are looking to make a big field change tell them why. Also, tell them if you have any specific ideas for projects you’d like to work on in their lab.
Becoming a postdoc

Take opportunities to increase your visibility at your institution and in the field.

ONCE YOU'VE STARTED YOUR POSTDOC

The interview for a postdoc position.

- What to expect: Generally, the interview will be at least one full day including, a talk you give about your graduate research (this may either be for the lab group or for a somewhat larger group), a meeting with the potential postdoctoral advisor, meetings with graduate students and postdocs who are currently in the lab. It may also include one or more meals with people in the lab, tours of the university/institution and the area. Generally, the potential postdoctoral mentor will pay for all or part of the expense for you to travel to their lab and stay overnight if required.

- You must prepare well for these interviews!
  - Give a great talk. Remember that the labs you are interviewing with may not be experts in the field you did your graduate work in, so be sure to include plenty of introductory information. It is a good idea to practice this talk both for people in your graduate lab and outside of it. The talk should generally be 40-50 minutes (of course, it's always best to check with the potential advisor, just to be sure).
  - Read papers from the lab you're interviewing with. Particularly focus on recent review articles and publications so you have a good idea about where the lab's work stands and what they're currently most excited about, so that you can ask good questions when you meet with people from the lab. Also, if the lab has a website, check it out. This can be a good way to get a general overview of the lab's work.

- What should you wear? This is an interview situation, so you should look professional—first impressions are important. It may depend on the setting where you will be giving your talk. Also, people in departments associated with medical schools are generally dressier than those associated with the graduate school.

- Questions to ask—remember you're interviewing them as much as they're interviewing you!
  - Hw will we decide on the project I will work on? Can it be a project of my own design or does it need to follow directly from ongoing work in the lab?
  - How big is the lab—how many grad students/how many postdocs?
  - Will I interact directly with the PI on a regular basis or is the PI more "hands-off"?
  - What is the environment like in lab—collaborative/independent?
  - How do people in the lab seem to get along?
  - Will I have access to a technician's help?
  - Is all the equipment available in lab now for the type of work I want to do—promises that something will be bought soon do not always come to fruition.
  - What do postdocs from the lab go on to do?
  - How long do postdocs generally stay in the lab?
  - Will I be able to take my research project with me to start my own lab?
  - Will the potential mentor help me be visible? (i.e. send me to meetings, help get me the opportunity you present at meetings, etc.)
  - How many grants does the lab currently have? When are they up for renewal?
  - Am I expected to get my own funding—is there a certain date by which I need to be funded? Are there any internal fellowships available for postdocs? Note: This is a good way to get into the question of salary without having to point blank ask what the salary will be. Know that you must be paid at least the going NIH minimum if you are being paid off NIH grants—you can look up the NIH minimum level on the NIH website.
  - Would the PI help pay for my moving expenses?
  - Could I see a recent grant proposal to see where the lab is proposing to go with research in the next few years?
  - What are the benefits like for postdocs at this institution?
  - What is the environment like for postdocs in the department/institution?
  - What is the research community in this discipline at the institution (i.e. what are the other labs I could be able to interact with/collaborate with)?
  - What life is like in the city/town where the institution is located? Note: I would recommend tailoring this list of questions to your needs and then trying to ask several people the same questions while you are there. Several questions that it may not be appropriate to ask the PI directly are (as alluded to earlier) the salary question, whether the potential PI is supportive of people who have children, and the PI's expectations for how much people in the lab should work. However, these are certainly questions you will want to look into and find out the answers to.
  - Also, be sure to make good connections with people in lab—these are the people you may be working with in the future, and they have first-hand knowledge about what it's really like to work with this advisor. Pay close attention to the attitude people in the lab have toward the PI.

Remember to follow up after the interview with a thank you letter. Try to send out the note or e-mail within 48 hours after returning from the interview.

ONCE YOU'VE STARTED YOUR POSTDOC

Focus on your research.

- This is a time in your science career when you generally do not have many other commitments (classes to take teach, meetings, etc.) that take time away from the bench, so take advantage of this.

- A good strategy is often to work on two projects at the same time—one that is the "bread and butter", which follows more directly from the work of the lab and is less risky, and the other that may be more risky but you are developing it from scratch so may hold more promise for the future (i.e. for you to take it to start your own lab).

- Consider getting teaching experience, but do so in small amounts, if possible, (i.e. a few guest lectures), unless you are planning to apply to institutions where your primary responsibility will be teaching, in which case you should try to get more teaching experience.

Take opportunities to increase your visibility at your institution and in the field.

- Look for opportunities to interact with other grad students/postdocs/faculty in the department (for example, start a journal club on your research area of interest).
- Seek out research collaborations within your institution and outside of it.
- Develop relationships with PIs other than your advisor at your new postdoc institution. Although you do not have a "research committee" as a postdoc, it is important to get to know several other faculty members at your postdoc institution, both for their input on your work and also so that they can write quality recommendation letters for you when you apply for a job.
- Attend meetings—both smaller (Gordon Conference) and larger (ASBMB Annual Meeting) in size. Try to present your work at these conferences either in a talk or a poster.
- Take every opportunity you can to speak about your work—not only will more people know about what you do, but it is also great practice speaking.
- Try to meet with/have a meal with scientists that are visiting your department to give a talk.

**Stay focused on your future goals**

- Re-evaluate where you are and whether you are making progress toward your goals on a regular basis: Are your current efforts getting you where you ultimately want to be?

**Try to get your own post doctoral fellowships**

- Getting your own fellowship as a postdoc is a great way to show potential employers that you work on fundable questions and know how to write a good grant application.
- Additionally, writing postdoctoral fellowship applications before or when you arrive in the new lab will help you get a better understanding of your new field and really develop a framework for your project.
- Note that most fellowships require that you apply within your first year as a postdoc.
- There are also certain fellowships/grants that provide money for the transition from postdoc to new faculty. These include:
  - NIH Pathway to Independence Award
  - Burroughs-Welchome postdoctoral-faculty bridging awards
  - NIH K grant
  - NSF fellowships