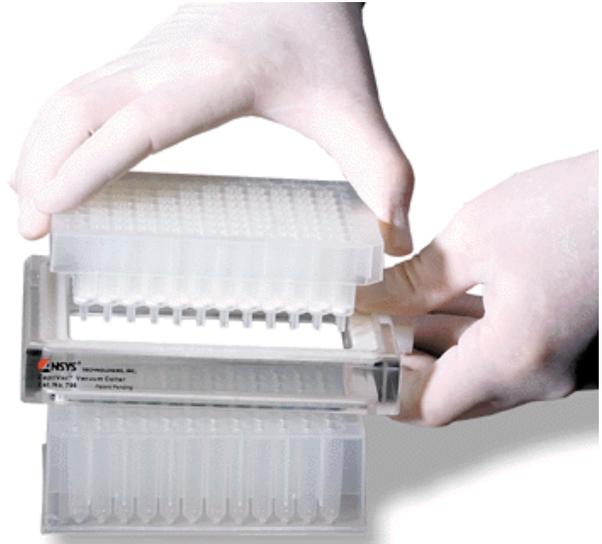


Finding a Research Lab

by Chris Doane

Disclaimer:

This is only advice about finding a lab suitable for you, but it seems to be the most efficient way to optimize your research experience and your search before you even step foot in a lab.



Acknowledgments:

These questions are a combination of former Bio 500 Director and retired Biology Professor Danny Kohl's suggestions along with experienced student opinions.

Create a Short-List of 5-7 labs that interest you:

Go to the Bio 200/500 webpage and click on the mentors link and/or check out the research guidebook (list of all Wash U research labs) from the biology library.

Email PI to set up your interview:

Email the Principal Investigator (PI) a short paragraph explaining that you are an undergraduate interested in research, and that you find their area of research fascinating. Also, read a summary of one of their articles (you may make reference to it in the email if you want; it can't hurt, but you will need to have read an article before the interview anyway). Ask them if you can come in to meet with them at their leisure. In the email, include some of your personal strengths: GPA, goals as a future scientist/physician/etc, importance of research in your undergraduate education, or other standout things about yourself.

Receive feedback: (you may not get many + at first). For those that do want to meet, continue these steps.

Print out a resume, also called a CV to give to the Principal Investigator (PI).

Read and highlight an abstract of theirs (on those with + feedback).

Study the questions (explained on the next page).



Note: Remember you are really interviewing them as much as they are interviewing you. You are a sought after asset and a bright student that the PI of any lab wants and needs.

Questions for the PI at the interview:

1. What kind of project would you have in mind for me (also mention and pull out the abstract of theirs that you have read and highlighted)?
2. Who would I be working with on a day to day basis?
3. Can I meet that person, and does that person want to have undergraduates under them?
4. Are there any undergraduates currently working in the lab?
If so, ask to meet them, get their email address, and email them for an honest opinion of what it is like to work in that lab.
5. If partaking in the project, what kind of authorship opportunities are there for me (i.e., first or second author of a published paper, which is the order of names on the list of authors for a published paper)?
6. Will there be opportunity to work multiple semesters (i.e., work toward a senior honors thesis)?
7. Volunteer/Work Study/Fellowship/Credit: if you are applying for a summer fellowship, ask the PI if they would be willing to contribute money toward the stipend (and what would be the agreement after the fellowship ended, like bio500 credit or pay, etc.). If this is going to be a school semester position, try to either get bio 200/500 credit or work study (pay) . Worst case is the volunteer position; although getting priceless experience, most labs should get you either credit or pay.
8. Note the general mood of both the PI and the lab members while being shown the lab, this will most likely serve as a good “indicator” of how the lab is daily.
9. If you are applying for a summer fellowship, ask the PI if you can still work in the lab for pay if you aren’t awarded one of the fellowships. Remember, the fellowships are relatively competitive, and you want to work for a PI who can keep you in their lab whether or not you are funded by a fellowship.
10. Be aware of the discourse: does the PI ask any questions about you, personally? Typically, if the PI doesn’t seem to care that much about those kind of issues then, they won’t when you are working for them either. You want a PI who cares about you not only as a scientist, but also as a student and person.
11. After the interview is over, write some reactions and important points you got from the interview so you can keep all of your thoughts about each lab clear and separate (i.e., sort of “rate” the lab in your mind).

Taking an offer for a position in the lab: There are many ways to choose the lab for you from the many offers you might get after your interviews are over, but there are some key determinants you need to keep in mind.

1. Pick the lab that makes you feel the most comfortable for your personality. Don't pick a lab just due to a high profile project or because of a PI having a great reputation (although those are noteworthy and good attributes).
2. Like above, pick a lab where the person that you will be working directly with (i.e., graduate student or post doctorate) is enthusiastic about having you. They are the key to your success.
3. Pick a lab where you think the data you will be generating will be exciting to find. Just think, you might be the first person in the world to find that data!!!! (or else it might not be research).
4. Consider the location of the lab and your schedule. Commute time can be an important consideration, especially if your project requires you to go to the lab for many intervals of short time duration or at odd hours. Consider your access to transportation. There are great labs both at the Med School and at Hilltop.
5. Always make a pros and cons sheet up. This helps you narrow down your choices quicker than you think.
6. In labs that have undergraduates currently in them, email those undergrads, and review their comments critically. They will be honest so put a lot of stock in their responses (in most cases).

**Take your position that you have
diligently pursued!!!!**

NOTE: Undergraduate research, as all research for that matter, revolves around persistence, skill, and knowledge. But an unequivocal amount revolves around luck, so

GOOD LUCK!