



## Short Term Research Handbook/Student Advice

Many Penn medical students have conducted elective short term research projects over the years. Here is a sampling of some of the advice (via direct quotes) they've had for students who are considering pursuing an elective short term research project:

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### FINDING A MENTOR

- Start early, develop a list of potential mentors, and be willing to go outside your comfort zone in terms of field of study.
- Make sure that you have the full commitment of the faculty member. If the PI has multiple students working for them, ensure that you get priority in terms of input.
- Just start emailing around different people who are doing interesting work. You will be surprised how fast they respond and how excited they are that somebody finds their work interesting.
- Send an email to your top 3 physicians studying something that interests you and set up meetings. Some of my current mentors took almost 2 weeks to reply by the way, so be patient!
- Talk to upperclassmen or faculty about who may be a strong mentor in a given field.
- Show enthusiasm. If you have an interest in the field they work in, show that. If you aren't sure what field you want to go into but find the project interesting or have an idea for a project of your own, let that motivate you. Mentors know when a student is or is not interested in the work and that may change your experience.
- Pick a project/area of research that you find exciting rather than based on the prestige or ease of finding grant money.

### FINDING FUNDING

- Keep an eye on the many emails you will get about it, especially the website with all of the opportunities for funding. And even if the funding deadline has passed, still email the coordinator, and see if there are available spots.
- Start looking early. Penn has some pretty great sources of funding, so look locally first and then start looking for more national funds.
- Cast a very wide net, if for no other reason than to find backup options.
- Submit applications to at least 2 potential funding sources.
- Search widely and early... Before December.
- Target your funding search to a few sources, so you can personalize your application, and ask your mentor for help in identifying sources.
- Have this conversation early on with your mentor!
- Some research programs have established sources of funding, others may require you to find that on your own. Explore the research website for a long list of great sources of funding.

- Don't be discouraged by some of the timelines that some programs set - email someone and ask if it would be OK to work with a different timeline (since we end school a bit later).

### **DECIDING BETWEEN SUMMER RESEARCH AND OTHER ACTIVITIES**

- Ask yourself if you see the research impacting/influencing what you want to do through your career. If it is not directly relevant, or you are not very passionate about the research - travel or do something else.
- If you are serious about pursuing a career in a competitive field, you would be wise to start building your research resume and faculty relationships during your first summer in med school.
- Assess what you may want to go into; if it is highly competitive it is often worthwhile to start doing research your first summer. Doing clinical research gave me the flexibility to travel a bit as well.
- If you're planning on doing global health for your career, travel likely fits in to your career trajectory. If you're not, I would suggest you do research; you have your whole life to see the world, but it's best to get started on research when you're young.
- Doing research is a great way to form a relationship with a faculty member in a field that you are interested in. I was also able to travel to Florida to present research so you may be able to get some paid travel time with the research as well.
- Do whatever will allow you to make the most of your summer. I wanted to do clinical research, because it was a new experience, and I expected that I would enjoy it. But I do not feel that it is worthwhile to do summer research for the sake of your resume if you feel that you will be happiest traveling.
- Do what you will find most valuable. If you need a break and are eager to explore, enjoy your summer that way. If you are hoping to have several publications to put on your residency applications, this summer is a great time to get started. Whichever path you choose, make the most of it.
- Be aware that the summer is a really short time to conduct a proper research project (even if you are to use all 9 weeks, it's very hard to get publishable data, unless you are lucky/very good in your choice of lab). However, if you are already in contact with someone at Penn and are able to talk to said person and start getting yourself oriented, you can get a lot more done. If you'd rather not start something during the semester, I think it's great to explore your options elsewhere - do research somewhere you think would be fun and get a taste of both research and travel. If you really just want to travel, you'll know that yourself.
- Do both! Definitely save time to travel and relax. That is most important.

### **SETTING GOALS AND EXPECTATIONS WITH YOUR MENTOR**

- Be clear if you only want a summer project in your initial emails and be realistic with goals. For example, both of my projects ended up carrying on nearly 1 year later, but I was prepared for that and had a very honest conversation with my mentors as to that being a possibility.
- Most mentors are forthright about goals/expectations, but few would fault you about stating up front what you would like to get out of a summer.

- Always have an agenda when you set up a meeting with anyone and bring a laptop or paper to write down notes with. Ask your mentor what his/her expectations are and feel comfortable sharing what you hope to get out of the project.
- Plan to do some work before summer begins (especially in a more basic science lab). Set achievable goals for the end of the summer (it goes by faster than you would expect). Learn as much as you can about your topic so that you can take an active role in the project.
- Be realistic and understand that the fall of 2nd year is MUCH busier, so it may be hard to continue your research then.
- Communication is key. Ask for feedback and continue to address your expectations (wanting to publish or meeting certain deadlines).
- Expect to work hard. Basic science research is challenging and requires long term commitment.
- Continue relationship with mentor