Getting a Summer Laboratory Internship
A Guide to Help You on Your Way

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Why Get a Laboratory Job

Top Ten Reasons

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- 7. Labs are a relaxed and comfortable setting, usually just a t-shirt and jeans.
- 6. Learn about a particular topic or research technique in great detail.
5. Find a particular field of research to potentially turn into a job.
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- 1. If you want to be involved in research in any capacity in your future career (even as a physician) you need to get as much experience as you can.
How to get started

- **Location**
  - Where are you going to be this summer?
    - **DC**
      - GWU, Georgetown, NIH, FDA, and more
    - **NY**
      - Sloan–Kettering, Columbia, NYU, Albert Einstein, Cold Spring Harbor, and more
    - **Boston**
      - Dana Farber
    - **Washington State**
      - Fred Hutchinson
        - If you live in the upper northwest and are interested in cancer research, this is one of the best centers in the world.
    - **Chicago**
      - Northwestern, U of C
    - **Houston**
      - MD Anderson
  - And so many more!!!
Let’s Talk Specifically about the NIH

1. Benefits to working at the NIH
2. How to apply
   ○ How to make the Science CV
   ○ What goes in the cover letter
3. Finding a Laboratory you want to work in
4. Emailing Principle Investigators
   ○ Special CVs
5. Interviewing
6. Visiting the Campus
7. Resources at the NIH
1. Benefits to working at the NIH

- There are 27 different institutes
  - You are bound to find SOMETHING you are interested in.

- Summer Interns are paid
  - Roughly $2300 a month (and no taxes are taken out)

- Laboratories are equipped with a ton of high tech machinery, so you can easily become highly trained in specific experiments

- They host tons of events to get summer interns as involved in the world of science as possible
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2. How to apply to the NIH

- When should I apply: NOW

- The application opened up back in November, and it will remain open until March 1. Getting a job is on a FIRST COME FIRST SERVE basis. The longer you wait, the less spots there are. You need to apply NOW
Step 1: Go to https://www.training.nih.gov/programs/sip to learn about the Summer Internship Program.

Step 2: Click on the "application" link.

Step 3: Fill out the application

◦ It is a relatively simple application. They just ask for you to type in your grades, C/V, and a cover letter (instructions on next slides). It is important to read the instructions for each section!!!!

Step 4: Obtain Letters of Recommendation

◦ You only need 2, and at least one from a science teacher

Step 5: After everything is proofread, submit the application. (Steps 1-5 should not take much longer than 2 weeks)
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How to make a science C/V

- There is not necessarily one correct way how to do it
- Make sure there is contact information available
  - Email addresses should not be embarrassing!!!!!
- Make sure to list all legitimate work experience you have
  - Give a brief (1 sentence) description of what you did there
- List Volunteering that you may have done
- List skills you have, if you know of specific laboratory skills, make sure to put them down
- Go to the Career Center for more help
Daniel PeaceMan

Education
The George Washington University, Washington, DC
Bachelor of Science, Biological Studies
Minor in Political Science
GPA: Fall 2009, Spring 2010, Fall 2010

Achievements
Contributing Author
- Arsenic Trioxide inhibits childhood cancer growth by blocking Hedgehog/GLI pathway. Journal of Clinical Investigation, September 2010

Conference Presentation
- Metabolic changes in MOLT-3 cells induced by AZT can be modulated by the addition of the de-methylating agent 5-azacytidine (5-AZA). Genetic Toxicology Association (2010, September). Poster Presentation at Delaware University, DE.

Employment
National Institutes of Health: Postbaccalaureate IRTA Fellow, Washington, D.C.
- Experimental Transplant and Immunology Branch
  - Studying the Immune Reconstitution for patients following Allogeneic transplants of Hematopoietic Stem Cells for various lymphomas and leukemias.
- July 2011 - Current

The George Washington University: Academic Tutor, Washington, D.C.
- Tutor for Introductory Biology for Science and non-Science majors, Introductory Physics, Organic Chemistry
- 2010 - Current

National Institutes of Health; Summer Intern, Washington, D.C.
- Laboratory of Biological Cancer Genetics
  - Created experiments to better understand the pathway of AZT incorporation into DNA
  - Examined the effects of gene methylation in terms of drug resistance.
- Summer 2010

Lombardi Comprehensive Cancer Center of Georgetown; Student Research Assistant, Washington, D.C.
- Department of Oncology: Preclinical Science
  - Animal care, MRI imaging, and help develop specific projects for publication.
- May 2009 - December 2009

Robert. Lurie Comprehensive Cancer Center of Northwestern; Summer Volunteer, Chicago, IL
- Department of Obstetrics and Gynecology
  - Assisted Lab Manager with specific tasks in an Aromatase Laboratory
- May 2008

Adas Israel Synagogue; Youth Director, Washington, D.C.
- Director of programming for age groups from K-12 grades
- January 2009 - June 2010

Volunteer Experiences
- Mitzvah Clown, 2003
- Volunteer on Ambulances giving medical care (Israel), 2007
- Volunteer Student Mentor at DC Public School, 8th grade class, 2007
- DC Walk for Homelessness, 2007

Activities
- Jewish Student Association Executive Vice President
- Political Affairs Vice-President
- Alpha Epsilon Pi Member
- Minor Board- Academics Chair
- 2008-2009
What do you say in your cover letter?

- Be straightforward and honest
- Discuss your educational background, and major
- Discuss previous laboratory experience, if you don’t have any, mention that, but discuss some of the lab techniques you have learned from classes
- Discuss the kind of experience you want to learn about (but in the general sense)
- Talk about future goals/aspirations
- Talk about strengths
- Why would you be a good fit?
Okay, so you have now submitted your application.

You have spoken with teachers, and they have agreed to write letters of recommendation on your behalf.

You’re all set right?
BUT YOU’RE NOT...
3. HERE COMES THE MOST IMPORTANT PART!!!

- You now need to look for a laboratory that you are actually interested in working for.

- For each of the 27 institutes at the NIH, there will be a page (WITH LINKS) that mentions all of the research going on in the institute.

- For the NCI, the webpage is [http://ccr.nci.nih.gov/research/branch_lab_index.asp](http://ccr.nci.nih.gov/research/branch_lab_index.asp)
- For the NHLBI, the webpage is [https://intramural.nhlbi.nih.gov/CB/default.aspx](https://intramural.nhlbi.nih.gov/CB/default.aspx)
- For the NICHD, the webpage is [http://www.nichd.nih.gov/about/org/](http://www.nichd.nih.gov/about/org/)
- For the NIMH, the webpage is [http://intramural.nimh.nih.gov/research/labs.html](http://intramural.nimh.nih.gov/research/labs.html)
What to look for...

- It will list clinical and basic science laboratories
  - If you have less experience, I believe you will have a better chance looking for a basic science laboratory. Once you get more time in a lab, you can look at clinical opportunities.

- Find a branch/laboratory that interests YOU!!
  - You will then be directed to that labs webpage where it says not only what that lab researches, but who works there.
    - Your best bet is to then look at what each investigator is doing
WHEN YOU FIND SOMETHING YOU LIKE......

SEND THAT INVESTIGATOR AN EMAIL
WHY DO YOU NEED TO SEND AN EMAIL???

- Hardly ever will investigators look at the Summer Intern Database for new interns
  - (TRUST ME)
  - Its like finding a needle in a haystack

- You have to grab their attention by sending them a personal email, and once their interest is peaked, they MAY look at your file

- However, you must still complete the application. You will not be hired unless you fill out the application.
4. WHAT TO SAY IN THE EMAIL

1. Introduce yourself.
2. Tell them that you are applying for the summer internship program, and that you are a GW undergrad, etc.
3. Talk about what specifically interests you in their research. **BE AS SPECIFIC AS POSSIBLE.**
4. Briefly talk about past research experience.
5. Mention again that you think you would be a great addition to the laboratory.
6. Make sure to say that you have submitted your online application to the NIH website for their reference.
7. Attach a special C/V*.

   This should be about 4–5 paragraphs long.
What is the Special C/V

- This will be a 2 page C/V
  - Page 1 will be like any normal C/V you have done
  - Page 2 will talk about research interests
    - Start by saying “I would like to take the time to explain in more detail some of my research experience in previous laboratories.”
    - Mention in VERY SPECIFIC detail any past research experience you have. This is your chance to mention all the different techniques you know, the research goals you were working on, experiences you had. The more details the better.
    - Talk about new kinds of research you are interested in learning about. For example, if you have never done cell culture, mention that you want to learn cell culture (only if that lab does do cell culture...) etc.
You should repeat this exercise for every investigator you send an email to.

I know this may seem repetitive, however, it is very rare for anyone to read the c/v or cover letter from the actual application unless you tell a PI to go find you in the database.
5. Interviewing

- Can be done over the phone or in person
  - In person is recommended, because that is one of the advantages GW students have over other applicants across the country.
  - If doing a phone interview, make sure you have a quiet place to talk.
- Go over the research that laboratory investigates before the interview
  - Make sure you know what they do, otherwise you look bad for wanting to work for someone who you have no idea what they do
- Have questions ready
- Be modest, yet confident
- Thank the interviewer for meeting with you
6. Visiting the NIH campus

- For your interview or to see the lab you may potentially work in, it is helpful to visit the NIH campus.
- It is right on the Red Line at the Medical Center Station.
- All visitors must go through security before entering campus. This is located right at the Metro station. It will take an extra 5–10 minutes for this process, depending on how many people are currently going through security.
  - You must bring a Government Issued ID
  - If you bring a bag, it will go through an X-ray machine
- Once you are on campus, you can either walk, or take a shuttle bus
Once you start at the NIH there are plenty of different ways to get involved.

The Office of Intramural Training and Education is dedicated to helping Summer Interns and Post-Bacs
- Journal Clubs
- Guest Speakers
- Graduate Fairs
- Pre-Med Advising
- Summer Poster Day
- More

https://www.training.nih.gov/trainees/summer_interns
What about getting an internship somewhere other than the NIH?
There are plenty of research opportunities at any major university or drug company.

Go online to the University Homepage. There will most likely be a “Research” Tab.
  ◦ Find out about what kind of research is going on there
  ◦ Find an investigator to contact

Send them an email just like you did for the NIH, except you don’t have to mention that you submitted an application for their review.
Keys For Success

- **Persistence**
  - Email/Contact as many people as you can
  - Take the attitude of “If they don’t hire me, at least everyone will know my name”
    - But don’t spam inboxes
  - You are your best advocate

- **Time**
  - APPLY NOW
  - Be proactive

- **Be Optimistic**
  - Openness to different kinds of research
  - Even if it is not your first choice in labs, it might provide some excellent experience
  - Be willing to not be paid (if possible)
    - Sometimes money can be appropriated later...
QUESTIONS ????
That's all Folks!