Get Paid to Get a PhD!

Pathway Way to a PhD – Part I
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Most Students Don’t Realize...

01 Getting a PhD is STEM does not cost $$$.
You get paid a stipend to live off while you are doing your PhD.

02 Bachelor’s → Master’s → Doctorate (PhD)

03 Massive amount of different HIGH PAYING career opportunities!
What does a PhD in STEM entail?

- 1 - 1.5 years of course work in your field (4-6 courses)
- Teaching assistantships, comprehensive exams, ....
  - More on this in next workshop
- Join a research group
- Your own research project!
- Publishing your research!
- Travel to conferences to present your research!
- Overall ~5 years
What is a Postdoctoral Fellowships?

~2-3 years
gain more skills in another research lab
*(also paid)*
There are MANY!

**Academia**
- Become a Professor
- Community College
- Primary Undergraduate Institution
- R1 Research Institution

**Industry**
- Research Scientist
- From Big Companies to Small Startups to Consulting

**Government**
- Research Scientist
- National Institutes of Health
Is Doing a PhD in STEM Hard?
Is Doing a PhD Right For You?

- Do you like research?
- What sort of career do you want?
- Do you want to be a scientist?
- Do you want to be an educator?
Resources to Help You

- Office of Undergraduate Research (OUR) https://www.csudh.edu/gsr/undergraduate-research/
  - Research Initiative for Scientific Enhancement Program
    - McNair Scholars Program
  - Louis Stokes Alliance for Minority Participation Program
    - Department Clubs
Next Steps…

• Talk to faculty in your department
• START DOING RESEARCH
• Start looking into PhD programs that interest you
  • Don’t limit yourself to US schools
• Read articles from labs that interest you
• Follow research labs on social media (Twitter)
Identifying PIs You Want to Work With!

This is the MOST IMPORTANT THING!

Seriously, it’s MORE important the school or program you are applying to!
How to get started….

- Start a list of graduate programs at different schools that might interest you
- Make a list of the faculty in those programs who are doing research that interests you
  - Go to their research groups webpage
  - Read their recent research papers
  - Check if they have current funding
    - NIH Reporter
    - NSF Award Search

Follow all the labs/PIs you are interested in on Twitter.
I am serious!
Applying to PhD Programs

Start Applications Early!

- take the graduate record exam (GRE) [US only]
- arrange for strong reference letters
- reach out to faculty you want to do research with
- write your personal statement
- write your research statement
Dear Professor ....,

My name is ....

Tell them who you are and the research you have been doing during your undergrad.

I am interested in obtaining my PhD in .... and have applied to the program at .... I am very interested in the work you and your group does on ....

Describe in detail the part of their research that interested you.
Refer to the publications you recently read and the results/finding that interested you.
If any of your research background overlaps, describe that!

If I am invited to interview for the program, I would greatly appreciate the opportunity to speak with you about your research in more detail. I have attached a copy of my CV and transcripts.

Sincerely,

.....
The Recruitment Interviews

This is where you really get a feel for the research environments so ASK A LOT OF QUESTIONS.

You will have interviews with faculty:
- Tell them about yourself
- Ask about their research and any new projects that they may be starting
- Ask if they provide RAships for some semesters or if student have to TA
Research Assistant vs. Teaching Assistant

Research Assistant – your PI provides the funding to pay your stipend and you only do research for the year (along with any course work)

vs.

Teaching Assistant – you work as a TA for a class in the Department to pay your stipend

*These will vary based on the university/program so you will want to ask about these at the recruitment interviews
The Recruitment/Interviews

This is where you really get a feel for the research environments so ASK A LOT OF QUESTIONS.

You will have opportunities to talk with other Grad Student This is the most important part!

Ask about the research environment:
- Is the PI hands-on or absent?
- Are the projects collaborative or individual?
- Is the PI supportive of student's ideas?
- Do student have the opportunity to take control of their own projects?
- Do they like being in ...‘s lab?
- What are their weekly group meetings like?
- Do they have all the equipment they need to complete their research?
- Do they get the opportunity to present their research at conferences?
The Recruitment/Interviews

How the Program Work

By the time the recruitment interview is over make sure you have a SOLID understanding of how the program works!

This is going to vary across university/program:

- Lab Rotations
- Entrance exams
- Second year seminars
- Comprehensive/qualification exams
- Thesis defense
Pick the Program that is Right for You

THE MOST IMPORTANT THING IS THE PI!
Pick programs where there is someone (possible 2 or 3) that you REALLY want to work with. Their vibe fits your vibe!

After that, weigh the other factors that are important to you:
Does the program fit your career goals?
Is the stipend/cost of living suitable?
Does the location work for you?
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