



Trainee Initiative

The Graduate School Roadmap

WEBINAR Q&A



Is it worth doing a masters?

In my opinion, it is. Every step forward will create a much clearer path for you and your interests. However, it is not "essential" to pursue a PhD. I guess it depends on how and at what pace you want to develop yourself.

I did do a Master's (mostly advanced courses), and cannot be happier with it because it provided me with fantastic knowledge about cell and molecular biology topics and top-notch techniques. Later on, I found that it's been key to better understand things and research.

A Master's thesis can also be a great tool to impress a potential supervisor. You can show them how well you write and how sound your science is.



Do US universities ask for GRE subject test score too? Optional of course

Most will not specifically ask for this and none will require it, from my understanding. But it can help, especially if you have come from an education program that may not have given you those specific skills or knowledge. And as Robert briefly mentioned, things like GRE subject test scores can help show you are competent in an area that you may have done poorly in previously, and you can mention this in your application.





I want to get lab experience so I can go to America for PhD but I live in a country with no chance. How do I get lab experience?

There are fully funded research internships abroad - check out the Amgen Scholars Program and the TIGP-IIP (research internship in Taiwan). Also, doing a Master's degree might help to gain some lab experience.



It is also worth emailing supervisors and asking them if you can do a summer internship with them. You may need to email quite a few. But if you explain your situation, they may have options to help you get a stipend for the summer, or they may know fellowships you can apply to. I think being open about your situation can really help and supervisors do want to help students progress their careers, so they will try to help.




I have done my masters early in this year. Now I am working as a research Assistant. I have below 3.5/4.00 CGPA in my masters and in bachelors it's around 3.00/4.00. I want to pursue my PhD in Molecular biology. As you mentioned, there is a lot of competition for admission to grad school. After working as a research Assistant, my chances of getting PhD will increase or is it possible that working in lab can compensate my academia scores?



Hi, This is a great question. Yes, work experience helps with getting a PhD, and shows to the PhD program or potential supervisor that you are passionate and competent. I don't think GPAs are as crucial for a PhD as students are led to believe, and I think the improvement in your GPA from bachelor's to master's is a great bonus. You can also sell in your application to the PhD program your strengths that are not your GPA. The other speakers today might have other advice :)





Is it necessary to explain the previous research results to PhD supervisor. I am working on three different projects. But none of going to be complete in this year. So I am unable to publish any paper in this year or may be next year. Can it's affect my application. Even I have learned a lot of technology from gene to protein expression?

Having a paper isn't a requirement. I had a ton of research experience before I started my PhD but no paper. Mostly because I did a lot of short internships to get a feel for a lot of different areas and to help decide what I wanted to pursue. Also because I worked for a protein crystallography company (an industry with no paper chance). I did then publish one of my papers from an internship after I started my PhD, but I told my potential supervisor beforehand about that so he was aware work I had done was contributing to something in the near future. Further, on my CV I had a summary of each of my projects (2 sentences) and then a bullet point list of the techniques I had learned. I think that you have multiple different projects is good, it shows you have more broad experience. So I think you are on the right track!



How can I gain experience during my undergrad?

Apply for summer internships, there are a lot of them available around the world, or ask for a part-time opportunity with a company. Some of your undergrad professors may have some hours for a volunteer to help in their research or know someone that may need that help. I would ask your University tutors about this. But also you can develop bioinformatics skills for example using online platforms and websites and that helps a lot in research.



Yes, summer internships are a great thing to do, or just volunteering in a lab where you do your undergrad for a few weeks or days. You can take online courses that are more practical-based (especially coding courses or data analysis courses) and many are free, and you can put these things on your CV. Leadership experience is important, even if it is leading a group in something that is not science related. Also, volunteer work helps, even if it isn't related to your PhD.





My English is bad. Should I do PhD?

If you want to do a PhD or have a gut feeling about doing it, yes go for it. However, learning more English would definitely help A LOT! I could recommend you dedicate 1 year of learning and getting into English (let's acknowledge that learning something new always takes time). Having that in mind, do not rush into a PhD for the sake of saying "I have a PhD" but because you are passionate about a question or several questions you may want to address or are passionate about. So, take your time (Spotify and YouTube are two free good tools to learn).



It's more than likely you'll have to write a thesis and papers in English so it is worth training to increase your language skills. There are often courses offered by universities that you could do in parallel with your PhD studies. Increasing language skills is something you won't regret - you'll have to present seminars in English over your career, and communication is critical.



Is coding/data analysis crucial when furthering education or conducting researches?



Not crucial, but certainly helpful. Just having a bit of this experience, even if you are by no means good at it, helps set a precedent. It depends on what specific education or research you are aiming to pursue and how much coding crunch it requires. There are a LOT of online free training sessions for coding and data analysis, and you can certainly put these on your CV if you complete them to show potential programs or supervisors that you are passionate about and learning. Some of them will even give you a digital certificate and a grade to show. Free code camp or code academy are just two examples.





I'm in 2nd semester of my masters and my MSc is expected to complete by 30 June 2023. My dissertation is not started yet and after all it would be completed by June '23. I will be applying for fall '23 for PhD. So providing this without having any research experience should i apply or not? My people do one or two years project after their MSc to have at least one paper so that they can get acceptance. So should i proceed for fall '23 or should i wait for my MSc to be completed then doing a project for making for having a good research experience?

Others here may have a better answer. In my opinion, it doesn't hurt to apply and see how it goes. You can highlight the research experience you expect to gain in your master's or skills you expect to learn. I don't think having a paper is a requirement, but certainly having research experience is very very important. There are also PhD programs that allow lab rotations (especially in the USA) which can help you get research experience before you actually start your PhD project. That being said, if you have to pay high fees to apply for your PhD applications, it may not be worth it to apply too early.



I think you could try applying and see how well you do or not. There is always a chance that you may miss the cut for a PhD, but that should inform you about what you might be missing. But do not get discouraged to bypass what others consider the "canonical" pathway for a PhD. I think if you could highlight yourself enough and demonstrate your interest, some may see you through your light.
Good luck!



I completed my undergraduate with second class lower division with Anatomy sp. from faculty of Medical Sciences, University of Sri Jayewardenepua, Sri-Lanka. I have 3 abstract publications and one reserch award and my full paper is reviewing. I am intereted about Andrology and Embryology or reproductive medicine. Is it possible me to join a direct PhD with these ?



Hi! I am an MD-PhD specializing in reproductive biomedicine, and yes you can definitely get a direct PhD with these credentials. It's a matter of how you sell yourself on how these experiences help you prepare for a potential PhD. Good luck!





Which activities or skills can reflect research interest for an undergrad applying for direct PhD positions?

Depends on what field is in your interest, but you can easily do online courses in bioinformatics. Learning R or MatLab or Python will be beneficial before your PhD. On the other hand, you could try attending conferences in fields related to your interest or joining societies.



Summer internships and actual research experience are very important, even if it isn't a long-term project but just a few weeks, that helps a lot. You can also attend webinars or conferences online and put that on your CV. You can take free online courses on a variety of topics and also include that on your CV.



Hello! Exposures such as an internship or shadowing, attending workshops and seminars related to your interests, presenting in conferences or symposia, joining academic societies (usually free or discounted for students), and writing popular science articles (not necessarily actual research articles) for your school publications will definitely help.



I know people who have landed PhD positions after being an amazing participant in a Coursera (online lecture) course. So, even though not having lab-based skills, they impressed the PI with their engagement. Agree - internships are a great option. Lots of societies offer internship funding, so you can get some pay while gaining experience in the lab. Best to organize through a PI working in your area of interest



I second what James said. We have a PhD student in our current lab who had almost no wet lab experience before she arrived, mostly due to the covid pandemic preventing her from getting any experience. But she showed a very strong passion and understanding of our research and the techniques we do, and she had a understanding of the experiments we do even if she had never done them. And she is doing fantastic so far. She was very good at explaining her situation to our supervisor and listened.





What you can bring to the lab?

I think mostly they are looking here for your soft skills so you can bring in your enthusiasm or hard work, dedication, and resilience. PhD is a lot about those aspects, the ability to persevere despite obstacles. Saying that you are keen to learn and are a great team worker is also a big positive.



I would second Marta. I think soft skills are what is being asked here. For example your personality traits, and things that you can do to benefit the lab that isn't just specific experiment skills. For example, enthusiasm, a positive atmosphere, you like planning lab socials, you like to mentor or help others, etc



Yes, and how you work with others is really important. Labs are like a family, so you need to convey that you are collegial and a good team member



GRE or TOEFL or IELTS. What matters?

It all depends on the country and University where you are applying, but also where you are from. If you were born in an English-speaking country or did your Undergrad/at least 3 years of education in English you can ask for an exemption from the English test. I never did GRE so it may not need to be made depending on your choice of university.



Yes, it is very country specific. So it may be useful to research which countries require which tests and choose where to apply based on those requirements. For example, if you don't have GREs you could avoid applying to the USA, but as Robert and others have said GREs are no longer absolutely required.





I have emailed several supervisors with no response, what did I do wrong?

That happens! It even happened to me several times when applying for my Postdoc! I would strongly say: DO NOT GET DISCOURAGED and send them a FOLLOW-UP EMAIL! Everyone is so busy today that a friendly reminder won't hurt! I can also say that you could re-assess your approach such as: Introduce yourself - Mention your interests - Be clear about "why motivated you" to contact that person - and be clear (not too long as a first email)! Others may have diff opinions!



Yes, I would second Osvaldo, I have also had the same issue, and often it was almost always on the second email that I got a response!



Agree with all of this. No harm in politely following up



Another tip for this...the subject line of your email is very important (to get them to actually open the email) and keep it short and sweet, as often supervisors get hundreds of emails a day.



Hi all, thank you so much. I was feeling lost and depressed about making it into a PhD and leaving my country and I feel I have hope now.

Hope is the key in reearch and life too!
Good to hear



Yes! We are so glad this has helped. Pursuing a PhD is hard and can feel like a struggle bus at times but take it in baby steps. And reach out to us if we can help in any way.



Are publications extremely important for post-doc applications? I've had a very difficult PhD journey and haven't had a publication since my Masters. I am worried that this will affect applications for post docs. How likely are PI's to consider me if I don't have a PhD publication?



Publications matter more during post-doc applications I am afraid but if you have a good relationship with your PI maybe he could recommend you or you could look into doing RA for a year or two and focus on publications.



I know of a postdoc who went on to publish first author PNAS, Nature and Science papers but had no PhD papers. He explained to the PI who was hiring what went wrong with his project and how that hampered him publishing. Because he was meticulous, he got the job and did incredibly well in the position. So, there are work arounds, but papers are often desirable because in positions the postdoc for success in fellowship contests

