Science AMA Series: We're a group of scientists and career counselors at UC San Francisco and we help biomedical graduate students and postdocs explore career options and get jobs. AUA!

UCSF$_{C}areer_{D}ev^{1}andr/ScienceAMAs^{1}$

[1]Affiliation not available

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Abstract

We work in one of the few offices in the country dedicated to helping students (health professional, life sciences, population and social sciences) and postdocs navigate the job market. Our team designs career & professional development programs and resources, and offers 1:1 counseling support to graduate-level biomedical trainees. Feel free to ask us anything about how biomedical scientists can prepare and position themselves for the job market, how institutions can provide career development support to their PhD-level trainees, or strategies to improve the career prospects of the nation's STEM PhD's. More about our work: * The UCSF Office of Career & Professional Development * Motivating INformed Decisions Program * Graduate Student Internships for Career Exploration Answering your questions here today are: Laurence, Clement, PhD. Program Director, Academic Career Development Anna Correa, MS. Program Director, Clinical Careers Bill Lindstaedt, MS. Executive Director, Career Advancement, International and Postdoctoral Services Thi Nguyen, PhD. Program Director, Non-Academic Career Development Naledi Saul, MPM. Director, Office of Career and Professional Development Liz Silva, PhD. Program Director, Motivating INformed Decisions (MIND) Program Alexandra Schnoes, PhD. Program Manager, Graduate Student Internships for Career Exploration(GSICE) Program Claire Will, PhD. Program Director, Professional Skills Development We will be back at 1 pm ET (10 am PT, 5 pm UTC) to answer your questions, ask us anything! EDIT: Hello everyone! We're all here and are reading your great questions. We'll begin answering now! 2nd EDIT: Thanks everyone - these were amazing questions, and we had a lot of fun. Thanks for participating!

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UCSF_CAREER_DEV R/SCIENCE

ABSTRACT

We work in one of the few offices in the country dedicated to helping students (health professional, life sciences, population and social sciences) and postdocs navigate the job market. Our team designs career & professional development programs and resources, and offers 1:1 counseling support to graduate-level biomedical trainees.
Feel free to ask us anything about how biomedical scientists can prepare and position themselves for the job market, how institutions can provide career development support to their PhD-level trainees, or strategies to improve the career prospects of the nation's STEM PhD's.
More about our work: • The UCSF Office of Career & Professional Development • Motivating INformed Decisions Program • Graduate Student Internships for Career Exploration
Answering your questions here today are:
Laurence, Clement, PhD. Program Director, Academic Career Development
Anna Correa, MS. Program Director, Clinical Careers
Bill Lindstaedt, MS. Executive Director, Career Advancement, International and Postdoctoral Services
Thi Nguyen, PhD. Program Director, Non-Academic Career Development
Naledi Saul, MPM. Director, Office of Career and Professional Development
Liz Silva, PhD. Program Director, Motivating INformed Decisions (MIND) Program
Alexandra Schnoes, PhD. Program Manager, Graduate Student Internships for Career Exploration(GSICE) Program
Claire Will, PhD. Program Director, Professional Skills Development
We will be back at 1 pm ET (10 am PT, 5 pm UTC) to answer your questions, ask us anything!
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What's your view on the supposed 'oversupply' of PhDs or generally 'overqualified' workforce that some employers (and job seekers) complain about?

tfburns

There is a lot of discussion around whether there is an oversupply of PhDs, and whether we should be imposing a limit on the number that enter a PhD training program. However it's nearly impossible to accurately answer this question because of the complex workforce economics involved; policy makers and labor economics experts have tried. Our take on this issue is that it's distracting for the biggest stakeholders (those at the PhD trainee level) to think about it too much. Pursuit of a PhD and higher education in general offers huge value in itself, both to the student and to society. It is even likely there are sectors of the workforce that haven't fully realized the benefit they would derive from hiring more

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PhD-trained professionals.

If you are considering graduate school, first ask yourself whether a PhD degree is something you want to do for the love of the research (whatever that research might be). Second, be sure to consider what your career options might be at the end of your studies, and how well grad school will prepare you for those careers. It's up to institutions to decide what qualities they are looking for in a graduate student, and to ensure they have the capacity to appropriately mentor the students they accept to their programs. -LS

At the Ph.D. level, how hard is it to go back into academia after working for industry?

Snackleton

The question I hear you asking is whether it is possible to move back to academia, for a faculty position, after having spent time in a full-time scientist position in industry. This is possible to do, though not always easy and might require more training time. There are two 'times' when this is traditionally easiest to do.

Time 1, Early career: Very soon after you move into industry. If you realize that industry really isn't the right environment for you, work to get back into academia as soon as you can. Depending on your particular background and publication/grant record, you might be able to apply for faculty positions right away. If you aren't competitive for a faculty position, you may likely have to do another academic postdoc to get you the publication history you need. While you are still in industry,get on projects that will allow you to publish, so your time in industry doesn't cause a major break in your publication record.

Time 2, Advanced career: When you are a senior scientist with a well-known track record, your expertise and research program may be sought after to head back into academia, or to head to industry from academia (see Jim Wells and Don Ganem as examples of each). These types of transitions happen when throughout your time in industry, you continue to have strong collaborations with academia. You continue to publish the same quality as a top level academic scientist (and publish regularly). You continue to attend conferences and contribute to the academic community. You become known for innovative and impactful science, "even though" you are in industry.

At the end of the day, no matter when you might decide to head back to academia, you will need to spend your time "out-of-academia" thinking, acting and publishing similar to an academic scientist. --AS

I imagine you do a lot of triage for desperate people. If you could, what advice would you give those people five or ten years before they came to see you (ie. what mistakes do you wish you could avert before they were made)?

Jobediah

The advice I would give students and postdocs early on in their training is to start exploring career options and planning their training accordingly. Career exploration can be a lengthy process and, in a way, graduate school is a way to explore academic research as a career option. For those with set career goals, they should strategically plan their training. Several key questions to ask themselves are: What are the important milestones that I should attain throughout my training to obtain a faculty position? What sources of support are available to help me attain these milestones? What advice can I get from successful trainees? What types of mentors will I need to optimize my training (OCPD Director Naledi Saul wrote an effective article about the types of mentors to find). And, most importantly, who are the PIs to help me get where I'd like to go?

Create a 5-year plan and revise it every year. And, if a faculty career is plan A, once you have identified plan B, you will need to ask yourself the same questions for this other career option. If you are a life scientist, one great tool to plan your training is the online myIDP tool from Science Careers.-LC

What advice can offer grad students in their early years to help them "hedge their bets" and prepare for the possibility of a non-academic career in case they find themselves unable or uninterested in pursuing one later?

And do you find that younger grad students are at all open to these discussions? In physics there was culture that even thinking such thoughts made you a sort of a "sell-out", which I think is pretty unhealthy given that most graduates will get non-academic jobs whether they want to or not.

Silpion
Hi Silpion - To hedge your bets and give yourself the best chance of transitioning from graduate school - start now to find out more about the options available to you. Use the skills you are learning in grad school to prepare for the possible career transition - (1) Form a hypothesis about what you might like, (2) find out more info about those options (to see if the career interests you and if you will be qualified), and (3) talk to people to build your network. Remember to factor in variables such as your geographic location, work values, and interests. Many of these non-academic career options are as competitive as tenure-track faculty positions and will require preparation, so hedge your bets and start researching your options now. Need tips on getting started? Check out this article http://synapse.ucsf.edu/articles/2015/03/05/good-habits-are-key-successful-career-hunting - TN

Hi all, and thanks for doing this AMA!

Why do you think the job market is currently so difficult for PhD level scientists? Is this a situation that will remedy itself, or only continue to become more bleak?

Damaso87
It is definitely true that there are far more PhDs than there are available faculty positions. This situation has come about following drastic increases in the number of PhD-level trainees, without commensurate increase in the number of available faculty positions. However we are seeing a changing worldview in which institutions, students, organizations and even funding bodies are recognizing the enormous value in placing PhDs in a breadth of careers in all sectors of the workforce. When viewed through a lens of considering the enormous potential for PhDs to contribute to policy, education, industry research, and other fields, the outlook is much better than it might first appear. This does not minimize the work it takes to actually get a job -- any type of job. It's a very challenging process, but fortunately the range of careers out there for PhDs is quite diverse and come with huge rewards. -LS

I've know quite a few people who did some other form of engineering for undergrad (mechanical, electrical, chemical, etc.), and then did BioE or BioMedE for grad school, using their undergrad field as an area of focus. Do you think that these people have a notably harder/easier time with finding a job they're happy with, compared to people who majored in a biology/med field all the way through their higher education?

Also, in your experience, how easy is it for individuals who are educated in a completely separate field (for example, one of the ones mentioned above) without BioMedE experience to get into a career in the BioMed field?

Thanks for doing nothing this AMA, it's rare to find a university career development program that actually knows how to help BioMed students!

Alice_in_Neverland
UCSF does have a BioE program, and the students in this program come from a variety of science backgrounds. Interestingly, the BioE PhDs have a greater tendency to finish their graduate studies with

a Masters degree, and they complete their PhDs faster than students in other programs. Of course we can't really comment on how happy they are relative to their Biomed classmates, but those that leave with a Masters are very likely doing so because they've found a job they want.

If you have completed an engineering PhD, it is definitely possible to move into a BioMed career, but there will be a few challenges. Be prepared to put in additional work for development of particular hard skills (eg. techniques or applications) and be aware that you may face challenges in bridging a conceptual gap in applying your knowledge and skills to issues in human health. Importantly, though, the most valuable skills you hone in the process of completing a PhD, critical analysis and problem solving, can be applied in a breadth of careers. -LS

Why is the job market difficult for recent graduate from stem programs? I'm a recent biotech grad seeking employment for 1 year and half. I'm afraid it will be longer. Please help?

Deafgetjacked
Job market prospects will vary depending on whether you are a recent graduate from an undergraduate stem program, master's program, or doctoral program. The job search may be more fruitful if you are not geographically bound - meaning you can move to a biotech and pharma rich area such as the Bay Area, Boston, Seattle, or Los Angeles, to name a few. Other ways to improve your job hunt chances is to build your professional network in your area. Connect with professionals and ask about ways to become more competitive. Sometimes reworking your application materials can help you stand out - so consider getting feedback on your resume. Check out our tips on writing targeted resumes and cover letters - TN

International PhD students in the US face the extra hurdle of entering a (literal) lottery to obtain work-visas (H1B) if they want non-academic jobs. In recent years, the chance of getting picked through the lottery is 30%, which is too risky given the consequence of leaving the US (to their often less developed homes) after spending years becoming a productive member of this country.

Have you worked with international PhDs and what advices have you given? International students increasingly make up a large part of the US PhD population, so I hope that you have given this some thoughts.

selectorate_theory
International scholars have some particular considerations when working in the United States, both for academic and non-academic careers. There are options aside from participating in the lotteries. For internationals looking to move to non-academic careers, consider larger and international companies. They have the means and knowledge to navigate the H1B visa system effectively -- some time their hiring cycles or work with academic institutions providing them greater access to H1B visas. There are also other work statuses available to highly trained and specialized scientists (like PhDs!), such as O visa. -CW.

What is the consulting career path like for graduate students (PhD or MD/PhD), and how can you set up such a career while in grad school?

cuval31
I've talked to recruiters from consulting firms and you have several options to show interest and demonstrate experience in business. Ways to set yourself up to be a competitive candidate for consulting: Become proficient at cracking the case: practice using case books; check out Youtube videos by Victor Cheng a former McKinsey consultant about navigating case studies; or join an online training course by Rudy Bellani via Oystir.com Gain business experience formally or informally.

Volunteer on a project with an online group such as Scimals or Curium Take or audit a business course; many mini-courses are available online (e.g., Coursera) Get leadership experience in a postdoc or grad student group, but don't just join - make an impact in the organization Network with consultants in companies you are interested in. Contact them and ask for feedback on case practice Highlight your business experience by making a separate "Business Experience" section on your resume.

Consulting firms have the reputation to demand travel, the development of new skills and long hours depending on the firm you join. For a better preview of consulting career paths, consider the firm you'd be working for (big vs. boutique) or the type of consulting (marketing, management, or strategy) or example. To find out more, search consulting firm websites that have programs specifically for ADC (advanced degree candidates such as PhDs and MDs), and talk to consultants you may know or find on social networks. - TN

Thanks for the AMA! I just received my first NIH grant, which moved me from postdoc to research faculty....great, right? But what on earth do I do now, to transition to tenure-track faculty with my own lab? I honestly don't really know how to begin the search for such a job, since word-of-mouth seems to be the only reliable way to find these positions...that, and blindly searching the HR sites of universities at which I know people. Thoughts?

DischordN8
Congratulations on the grant! Getting research funding is a major goal of tenure track faculty. You just demonstrated the ability to develop fundable projects as well as convincing grant proposals. This makes you a very attractive faculty candidate; departments want to hire people with tenure track potential. Thus your strategy, to tap your network for positions, is a viable option. Success will take significant time, relationship-building, depend on the specific subfield job market, as well as the marketability of your other skills. However, if you need a position in the next year, consider a broader search, which includes responding to job postings. For a list of academic job search websites, visit our webpage: https://career.ucsf.edu/pac-up-4-searching. Note that successful UCSF candidates in the last academic job cycle applied to between 60 and 200 positions to get one or two job offers. So, consider putting all the chances on your side if you can. -LC

Do you feel that the value of a Ph.D has declined or increased in the recent years? What about the M.D.? I am a first-year graduate student on track to get a Ph.D - but I have no hard and fast ambitions or plans for after graduation. Should I be prioritizing networking, or should I be focusing on my academics?

Thank you for doing this AMA - Reddit is full of people like me that are moving fast in academia without a map.

LewsTherinTelamon
We are so excited to do this Reddit! So happy to chat with you all. And I'm so extra-happy that you are asking these questions as a 1st year grad student!

1. PhD/MD value?: At the end of the day I feel that the value of and PhD or MD is only what you yourself find in it or derive from it. Is the advanced degree going to get you the type of career you want? Does the degree allow you to get a job that has the environment, job tasks, financial support, recognition, location, work/life sustainability (or other values) that are important to you? There are many careers that are only open to you with an advanced degree, but there are many great careers that don't need one. It's what you value that is what is important.

2. Networking v. Training: BOTH! I posit that there is no conflict between the two. If you are going to spend the long, hard (but hopefully rewarding) slog that is grad school, dedicate yourself to it. Get

everything you can out it. Networking is critical for both your research and your future career. It is pretty hard to do good work in a vacuum. Your colleagues are where you go to with problems, and reality checks, and just some well-deserved venting. Building a network both within and outside of academia gives you a broad base of support. Also it can help refine your own research interests and where you might want to spend your precious moments outside the lab for projects or explorations that lead to your next career step. So get out there and get talking (and start working on that LinkedIn profile), it will help you today and tomorrow.--AS

What advice can you offer a new PhD in their first year of a postdoc who does not know whether to pursue academia or industry careers?

Slice_0f_Life
I am so thrilled that you are asking this question! Now is a great time to start exploring your career options.There are several things I would recommend to get you on your way or you can read this article to get you started.

1. Self-Assessment: One of the most powerful things you can do is know yourself and what you want and need out of your work environment (and your work/life situation). Fortunately, there are several ways to start working on this. A structured (and free) way to do this is to use the myIDP tool at Science Careers (full disclosure, our BL is one of the co-authors). If you have access to a career center, self-assessment tests such as the STRONG, MBTI, and others can be helpful in learning more about what's important to you.

2. Initial Exploration: Self-assessment never really stops, but it's hard to move forward without new information. This is where exploration comes in. Start reading all you can about industry. A place you could start is this content collection on Pharma from Science Careers. And there are many great articles online. I also recommend books like Toby Freedman's Career Opportunities in Biotechnology and Drug Development. One of your main goals is to start compiling up questions about Industry that you want answered. Also attend any seminars that are industry-related at your institution or attend webinars if none are happening where you are (many professional societies put on things like this), and see if there are any career seminars at the next conference you are going to.

3. Advanced Exploration: Get yourself out there talking to people. My suggestion is to do this as early as possible, because it may take time to get comfortable with the dreaded "networking." As awkward as it can feel, talking to professionals is the best way to get your various questions answered. What you are going to be aiming for is informational interviews. But you can start the process at conferences, networking events, even in you lab with lab alumni. You might be amazed at the people you actually have in your network! This is where LinkedIn is really powerful. Slowly but surely, build out your profile and connect with your friends and colleagues, people you network with (some good tips and tricks). Super -advanced exploration would be finding and working on projects or industry collaborations to get a 'hands on' feel for the environment.

At the end of the day, use the time you have now to make self-assessment and career development a consistent part of your life, so that when you get closer to when you move onto the market (for whatever career you decide on), you aren't rushed and feel very informed. Also, my answer focused on exploring industry, but you can use these same techniques to explore parts of academia that you want to learn more about -- AS

This question is coming from someone aiming to go to eventually go to medical school, I see a few people that may be able to give useful advice.

My acquaintance has been working to repair a not-so-great undergrad GPA over the past year

by taking classes at UC extensions online along with working at a hospital and volunteering with organizations providing free healthcare clinics. This person believes she would be served well by programs like the UC Postbaccalaureate Consortium but it requires several letters of rec including from a science instructor.

This person is wondering whether submitting a letter of rec from an online instructor at a UC-extension (4 classes) would be seen negatively.

Saboot
Getting a LOR from an online instructor wouldn't necessarily be seen as negative. However, your friend should take into account the strength of the letter. The question that your friend should ask themselves is: "Will my online instructor be able to write me a strong LOR, as opposed to an instructor who knows them personally in face-to-face classes?"

If the answer is "Yes, I've had enough meaningful interactions with my online instructor so that they will be able to write me a strong LOR and can authentically speak to relevant skills and characteristics that will contribute to me being a strong candidate for medical school," then the LOR would be as strong as other candidates and therefore just as competitive. --AC

Hello and thank you for doing this! I have a PhD in biochemistry and am currently in a biology education postdoc. I am applying for academic jobs but I am curious about the "industry" of education and education research. Any thoughts or advice on resources?

kittyisagoodkitty
The field of science education research is in its early days and is showing some promise for trainees who are interested in switching their focus from research in science to science education. More and more institutions are hiring tenure-track faculty or lecturers with the potential for permanent employment who have a PhD in the sciences, in addition to training and publications in science education research. If you are asking about the job prospects for science education researchers outside of academia, there are a number of start-ups in the U.S. that focus on education technology (the most renowned being Coursera and Udacity), and these may be potential employers for education experts. However, my understanding is that their focus is mainly on hiring education technology and/or data analysis experts, with fewer curriculum development positions. If this is a field that you are considering, I would recommend conducting informational interviews with people in the field who have similar backgrounds – this will give you a sense of the skills you need to put forward or develop further for this type of position. Other resources may be the American Educational Research Association website. For academic and non-academic job prospects in education research, check out HERCjobs or HigherEdJobs. -LC

Do you have any advice on how to find a job as a biomedical engineer (product development) that does not fall into the category of networking or applying to online listings? Would a better strategy be to take a different position somewhat unrelated (technician, etc.) at a desirable company to try and get the proverbial foot in the door? And would my current location play a factor in anything?

WildBartsCantBeTamed
I've worked with well over 1000 PhD-level scientists who have successfully moved from the academic research track into a wide variety of non-academic jobs. Nearly 100% of them would trace their eventual job offer back to either a contact who helped them get their foot in the door (networking, that is) or else an online application to a posted position. So, if you're reluctant to get out there and talk to people, or to carefully tailor resumes and apply for posted jobs, then you might be in for a long and uncertain job search.
However, a few clients have landed jobs by more passive approaches including:

1. Reaching out to third party recruiters (known as "executive search firms" or "headhunters" or even "contract staffing firms"). Consider submitting a generic version of your resume to some search firms that specialize in your field. There's a search firm that specializes in everything so just google "search firm and x" where x = an application, product area, disease focus, tool or device that you would be qualified to work with based on your current background.

2. Attending job fairs. Job fairs are great for learning about companies, local employment markets and networking. For PhD-level applicants where your background is specialized, the chances of landing a job by passing out your resume at a job fair are very slim. But give it a try and see what you can learn!

3. Creating a really solid LinkedIn profile and posting your resume on science focused job search sites like Biospace, ScienceCareers.org, NatureJobs, etc, or even general job search sites like Indeed, Monster, etc. Recruiters from companies or third party recruiters might find you.

4. Join several scientific societies related to your field that feature job boards for members and post your resume on those sites, also with the hope that recruiters or more senior society members who are hiring will find you.--BL

1) How useful is international experience (say, as a post-doc) to a tenure-track academic career in the US? Are foreign PhDs or postdocs more or less competitive for junior academic/tenure-track positions?

2) Does journal impact factor matter or more less to US institutional hiring boards than citations or other factors? What can young scientists do outside of publishing their research to improve their chances at gaining employment in academia?

tfburns
These are two pretty different questions, so I'll answer in two parts.

1) Half of UCSF's postdocs are internationals, and our office has worked with many of these postdocs as they move into faculty positions. There may be indirect advantages to having international experience -- for example with a wider network, and greater experience of the way science works in different parts of the world, an international may be better prepared to navigate collaborations. However, in our experience, there is no direct or specific advantage or disadvantage in the application process to having had international experience prior to your postdoc. Importantly, though, it is more difficult to move into a US-based faculty position directly from an international postdoc. Outside of the US you would not be eligible for certain funding mechanisms like the Pathway to Independence Awards (K99), and you may find it difficult to be isolated from the grant review and application processes that are unique to the US.

2) There are significant efforts in the US, and in other countries, to move away from assessment by impact factor. There is increasing recognition of the flaws of the impact factor as an inadequate and inappropriate measure of a scientist's worth. Citations, and other article level metrics, are of increasing value as a more direct assessment of the impact of a scientist's research output. Outside of publishing, there are many ways to make yourself marketable as a candidate for a faculty position, and there are many skills and experiences that can help you to succeed once get the job. To get you started, have a look at this brand new resource created by our office : http://career.ucsf.edu/pac-up-stage-3. It is designed to guide trainees through the preparation of various types of academic appointments, and the skills and experience needed to get you there. Good luck! -LS

Thanks for doing this! I'm a third bioengineering phd student hoping to finish up in another year. I don't know if it's just my program or not, but I feel as though I've zero preparation for a post graduate career search.

Where/when do I begin? Any good tools for putting together a great CV and landing a job?

joojAlooj
From your question, it sounds as if you're willing to get any PhD-level job, which is where many job seekers start fresh out of their PhD. However, though it might sound counter-intuitive, this approach often leads to a very frustrating and prolonged job search. Therefore, spend a lot of time now (a year before you graduate is a great time to start!) deciding what job title and environment you want to shoot for. Faculty at a research university? Research scientist in a medical device company? Product development scientist in a medical device company? Field apps in a tools company? Policy advisor for a congressional office? Investing time now in learning about your career options and selecting which would be your Plan A and your Plan B will help you gain focus later, when it's time to think about CV's and resumes and job applications. To help you get started with the complex process of exploring your career options, we've developed a list of 20 job categories and 58 job titles for PhD-level scientists, and linked a reading list to each job category. To see this list, visit https://myidp.sciencecareers.org/ReadAboutCareers/Resources (you'll have to create an account on the myIDP site). After you gain some focus about what jobs to shoot for, as you're approaching the time when you are finishing your PhD and want to apply for jobs, create a generic resume for each type of job. Then when you actually apply for a posted position, be sure to carefully tailor your resume for that particular job posting, considering both the position itself and the company hiring. Here is a tutorial for tailoring your resume, and here is a page with a plethora of great advice for PhD's who need to write a CV or resume, including sample resumes for a variety of PhD-level non-academic jobs.
Get started early and good luck! --BL

What resources/tips can you recommend to recent college graduates having a tough time choosing a general career path? And how does that advice change when taking about the natural and social sciences? I'm struggling how to balance my interests with what will be financially sustainable and a meaningful way to spend a majority of my life. Thanks for doing this AMA!

SpartanCKG
There are two parts to your question, the first is exploring careers to find meaningful work ,and the second is analyzing your return on investment given labor market dynamics.

For the first part of your question: There are several ways that you can explore various career paths as an undergraduate, however many students find that the most illuminating way to determine whether or not a career path would suit them is to experience it first hand through obtaining an internship or externship. Due to financial constraints, some students can't always afford to take an unpaid internship however, so a multifaceted approach to career exploration is key. Here are some steps you can take to further explore your interests and careers:

1. Assess yourself: Take note of what activities/skills you enjoy most and ask yourself what you like about what you're doing and why. Often many students claim they're interested in a field, say English, but when they look at their activities, there's not many activities that reflect their interest, (i.e. they haven't written many things outside of what they need to do for classes and instead spend more of their time designing websites for student clubs because they enjoy that more). By taking note of what kinds of skills you enjoy using every day you can better identify which careers might be a better fit for you based on what skills you like using.
2. Research online: Once you've verified your skills and interests, you can start to explore career options based on majors online through your university career center, or resources such as: What Can I Do With My Major?, Explore Health Careers or My Next Move. These sites will give you information about various career paths and the education/training necessary to obtain a certain position. This way you can begin to start outlining which types of careers appeal to you most and cross check them against your preferred skills list.

3. Validate: your research through doing informational interviews and engaging in experiential experiences like internships, externships and related entry level jobs.- AC

Do you think that gaining a few (~3-4) years technical experience after completing a masters degree strengthens or weakens a PhD application? On the other side of it, do you think it would improve or worsen the ability of the student to complete the project?

Basically, is the increased experience worth the increased time out of education?

(I'm coming from a molecular biology background if that makes any difference)

EmeraldIbis
This question is a little outside our usual area of expertise, since we normally offer advice to folks who have already started their graduate training. However such questions are of interest to those we work with and so we do think quite a bit about it.

There is definite value in getting experience before embarking on a research graduate degree. Importantly, getting research experience under your belt will enable you to determine whether academic research is for you. When selecting students, the graduate program committee will see that you have done research already and know that you have a high enough interest and aptitude for research to commit for several years, and so will be more inclined to accept you. However it's not necessary to do both a research Master's degree and gain separate technical experience. Doing so is likely to just delay your final entry to the job market. -LS

Hi there! I'm currently getting my bachelors in biochemistry and I was wondering what advice can you give to undergrads in bettering their chances in getting internships or a job. I understand that it's difficult to get a job in this field when you only have a bachelors degree, but what should I start doing to increase my chances? What are some habits one should gain to improve themselves?

andreafantastic
Hi andreafantastic - great question! Typically, to be competitive for a biomedical research internship in industry or job with a bachelor's degree, you need to have some lab experience (a class or volunteering) and some level of leadership skills.

To increase your chances, be sure you are a match for the types of internships biomedical companies are offering. Be strategic - it's supply and demand. Go to websites for companies that you may want to intern with and check out the areas for which they offer internships. Some companies look for interns in specific areas within chemistry or biology or non-bench experiences (such as Clinical Operations, Regulatory Affairs, Drug Safety, Epidemiology, and Medical Communications).

If you are on the job hunt, look up job descriptions posted asking for BA level experience. You'll get a good idea of skills to learn. Other habits to develop - read up about the industry and gain knowledge about pharmaceutical companies - follow the Wall Street Journal Health News blog. If you are interested in a specific area such as regulatory affairs, check out the FDA website for updates on the industry. - TN