Curious about grad school?
Here are some questions & answers from the Biology event organized on Nov. 18, 2020

Practical details about applying for grad school & other logistics

1. When are the deadlines for application to different grad schools? What is the best way to look into different options of grad schools to apply to?
   Deadlines: it differs for different programs and institutes. Researching options: talk to many people, research the science you are interested in and who is doing it. Check out their publications and their websites. Contact the professor by e-mail.
2. what materials do we need to prepare for the grad school?
   One of the most important things are good letters of reference and research experience.
3. How long is grad school? *MSc: 2-3 years; PhD: 4-6 years*
4. What's the difference between a Master's and a PhD? Why get a PhD?
   An MSc gives you research experience, but is shorter. A PhD allows you to become an expert in your field, and because it is longer, it allows you to really master a field. If you want to pursue some jobs (like being a professor), a PhD is a requirement.
5. Without research experience, who can you submit as references?
   You can try to get letters of support from professors from upper-level courses where the prof. knows you from class interactions and can write more about you as a person. Research experience is very important.
6. When should we start to prepare for application for graduate schools? *It is never too early! Talk to people and think about what kind of science you are interested in.*
7. What's the min requirement for grad school?
   This depends on the school and even the program.
8. My undergraduate degree (B.A & Sc) involves a major in cell bio and a major in economics. The cell bio major is smaller than a typical science major. Will this lack of focus harm my odds of acceptance or make graduate school more challenging?
   It depends what else you have done. If you have research experience, this is likely to be weighed more heavily.
   Is the graduate application process as impersonal as it is for undergraduate applications?
   I hope not. It shouldn't be!
9. What is the process of application and any tips to increase our chances of acceptance into graduate school? *Line up research experience and good letter writers for your application. Research the lab and read a few papers from it. Then write a focused letter to the PI explaining your specific interests in their lab. Plan to interview, and perhaps give a talk about your UG research.*
10. How much do grades, extracurriculars, and lab/work experience, test scores etc matter when applying to grad school? What factor do you think is most important? *Research experience is likely to be weighed more than anything else (and the letters of support from the prof(s) with whom you have worked).*
11. Outside of Canadian grad schools I was wondering about grad schools in Europe, do you have any resources to guide students in the application processes there?

There may be differences, but the essence is likely similar. Contact individual profs first and line them up. One difference: there are expensive MSc programs in some European countries (e.g. UK) that are more like an UG than a grad program that do not provide much research experience. I would not recommend them for a McGill Undergrad.

12. Activity/GPA requirements. *This depends on the school and even the program.*
13. Can you tell us about the application process? When does it happen? Is it similar to applications for undergraduate programs? *Some programs have students come for a day or two for an interview (this probably does not happen during the pandemic). In the US, people are often accepted to programs, while in Canada, it is more typical that people are accepted only if they find a professor with whom they want to work first, and agree upon supervising them. It varies in Europe depending on country or even program. Having a clear idea of who you are interested in working with at a University, even if applying to the program first, is going to improve your chances of being successful.*
14. If you want to do a masters but not continue on to do a PhD, what are the benefits that the master would provide? Are there benefits? *Yes. You learn how to do research. You experience the life of a scientist. You may be eligible for some jobs that you were not eligible for with only a BSc. Statistically, you will make more than someone with a BSc does over your lifetime.*

Finding the right program/advisor for you

1. what is the best way to go about deciding on a grad school, in the sense of finding which grad program is best for you? *Talk to people and research the science you are interested in. Attend open houses, and ask to talk to students in the program. If you have the opportunity for an interview, make sure to take it!*
2. What is the best way to find out which postgraduate program, advisor or faculty is best for us - other than asking the opinions of profs *Research the science you are interested in, make a list of researchers who do this work, and write to them (not form letters!). Ask to talk to the students in the lab. If you interview with a lab or program, they should give you time to talk to the students on your own.*
3. How possible is it to go into a graduate program that is not closely related to our undergraduate program? Do you have examples?
   This is fairly common. Many people join labs and have to be trained in the techniques. You need to demonstrate a deep interest, and show that you are worth investing in. For example, many Universities still do not have neuroscience programs, and grad students join with widely different backgrounds (Biology, Psychology, Physics, etc.)
4. What is the best way to go about finding a supervisor but you have never been in prior contact with? *Research someone's lab, and read their papers. Write them a short but detailed e-mail that demonstrates your interest in their lab.*
5. Are there any Biology-related graduate programs that do not involve working in a wet-lab? *Sure. There are computational biological labs that do not do wet work.*

On the career path to grad school

1. Are there any differences between applying to grad school right after your undergraduate degree compared to taking a year off in between? *This is relatively common. It is not typically a big barrier, but think about what you do during that time and be prepared to explain it, and how it might make you better-prepared for grad school. Working in a lab for a year or two is a great way to gain experience and decide if you want to go to grad school. That is generally viewed very favourably.*
2. What is the best way to get lab experience especially during the pandemic? *Research labs and write detailed e-mails that are not form letters, but demonstrate an interest in a lab's work. Be persistent. Keep trying.*
3. Is it essential to have research experience prior to applying to graduate school (at Mcgill)? *It helps a lot!*
4. Do you need to know exactly what your research project will be when applying to grad school? Will your supervisor help you decide on a project? *No, definitely not! Beginning grad students seldom have a well-thought-out project that would be feasible for grad school, and especially at the beginning, you should expect to work on something that is largely shaped by your prof, but in consultation with you. As you gain experience, you can expect to have more say into the direction of your project.*
5. How can undergraduates get (paid) research experience in labs? *There are Workstudy programs that pay students, which you can apply for. There are also summer paid internships that you can apply for, but may need to be already working in a lab first. Another option is to get into a lab doing course work. Although you cannot get paid for it, it might get your through the door. If you explain that you cannot afford to volunteer, I think that most Profs will try to find other options for you. But if they already know that you are dependable and hardworking (from prior work in lab) that will help.*
6. How much experience of lab work grad schools are looking for, such as volunteering, interning in a lab or developing a research project on one's own? *Working in a lab for a final year project (e.g. Honours project) is great, and/or working in the summer. You really cannot have too much experience! Shorter lab experience is good too, but the more that someone can comment on your strong research skills, the better for your chances.*
7. If one considers pursuing graduate studies in the future, but wants to first get work experience in the field after undergraduate studies, how is it seen by professors/schools if you take two or three years to work before applying for graduate school? Would the research experience from undergraduate studies be regarded differently after this period of time? Thank you very much in advance! *This is relatively common. It is not typically a big barrier, but think about what you do during that time and be prepared to explain it, and how it might make you better-prepared for grad school. Some profs describe wanting to see evidence of "being able to deal with adversity" as a bonus for prospective grad students. Think about weaving this experience into your application.*
8. Is there any advantage in applying to a grad school at McGill if you were an undergrad here? *It is easier to talk to the professors and find out what the lab's research environment is like when you are already at the University. You can even try out the lab as an Undergraduate research student. Otherwise, it is not a big advantage.*

Financial details

1. What are the different aids and scholarships available for International students? *For graduate school in Canada or the US, all students, including International students, will have a guaranteed stipend (enough to live on) and your tuition will be paid. This explains why there are different deadlines (often earlier) for International students. You may be expected to TA for the full stipend.*
2. What are possible funding options for canadian citizens at american grad schools? *If you are a Canadian student accepted to a grad school in the US, your tuition should be paid and you should have a stipend that is enough to live on. You may need to TA for the full stipend.*
3. How likely are you to get scholarships? What is the expected payment like? *It depends on your experience and undergraduate GPA. Even if you don't get a scholarship, you will be paid if accepted into a lab. You may have a prof who takes you on contingent to getting a scholarship. In this case, they should help you apply for it, and expect that it is a possibility.*
4. What are typical funding arrangements for grad students at McGill? *In Biology, all students get a minimum stipend, although many students need to TA to receive the full amount. This is something to discuss with your Prof.*

Life as a grad student

1. Is a graduate student's thesis a collaboration with the professor? or is it determined solo and the professor must approve of it? *In Biological fields, this is typically a collaboration that at least at the beginning, is largely driven by the Prof.*
2. Is it easy to make connections in Grad school? *There are typically a lot of opportunities for social events, and networking. At McGill, grad students have Thomson House and many different professional development, networking, and social opportunities.*
3. What is the workload/stress load like in graduate school compared to as an undergraduate? *Graduate school is different from an undergraduate because it is more like a full-time job. Although there are typically fewer exams, there are still milestones to reach, which can be stressful.*

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4. What is the time commitment /course-load of a semester in grad school? Are there part-time options? *Graduate school is like a full-time job, and you should expect to work accordingly. However, the hours may vary, and there may be times when the workload is heavier and times when it is lighter.*

5. Is there opportunities/an environment for EDI work to be incorporated into Biology based thesis work? *Yes. Many departments and faculties have EDI committees, and/or are open to having someone (perhaps an incoming graduate student?) organize this.*
6. What is it like, teaching yourself skills during graduate studies? How much of it was in preparation, and how much was it was as the specific need arose? *You typically learn skills as you need them.*
7. Are there pros and cons to doing a masters instead of a PhD and vice versa? Pros and cons of travelling abroad for grad school versus staying at your home country? Is grad school more/less work or stress than undergrad? What are holidays/breaks like? *MSc or PhD really depends on what you want to do afterwards. It is also field and country dependent. The MSc is much more common in Canada and other countries than in the US, for e.g. There are lots of pros and cons to working abroad or staying in home country. Most would advise to focus on the science that you want to do, and go where that requires you to go. Getting experience abroad is generally considered quite positively in academia. If you look at most professors in Canada, very few would have not had at least part of their education abroad. You can think of grad school as being more like a job, so holidays and breaks are accordingly.*
8. I'd love some advice on overcoming imposter syndrome (e.g. feeling under qualified and undeserving of achievements even when this isn't true), and hearing about any experiences with it, especially pertaining to grad school or laboratory work in general. *Imposter syndrome is something that many of us deal with! However, I would argue that graduate school can help. As you grow during your PhD as an expert in your field, your experiences often help you find ways to overcome this. There are often also supportive networks of like-minded students and colleagues that can help combat this. Don't let your imposter syndrome feelings define you or hold you back! Go for it!*

Life after graduate school

1. What career prospects open up to me by perusing my graduate studies in biology/ biomedical sciences ? *Outside academia, there are lots of jobs in industry. Typically grad degrees open more management-level jobs. Check out this article and this one.*
2. Could the presenters also talk about interdisciplinary graduate programs linking biology with something else? For example, I am really interested in biology and business/society. Thank you! *There is a growing interest in this type of program. McGill is in fact just establishing some joint MSc programs to meet this demand.*
3. What are the job prospects after graduate school that's not in academia? *Outside academia, there are lots of jobs in industry. Typically grad degrees open more management-level jobs.*
4. What are some other kinds of master's programs in the biological sciences that are not research-related? *Non-research MSc programs (such as more course-based MSc programs) can give you the background you require if you are, for e.g., changing fields. However, these will typically not be paid like research-based MSc programs.*