

Applying for graduate studies in a research lab - Things you need to know

In order to be accepted as a graduate student with research thesis at McGill University, you must not only be eligible based on academic accomplishments, but you also have to find a professor who accepts supervising you. In parallel to your application through Slate, you therefore need to reach out to professors with research programs of interest and inquire about the opportunities in their labs. Choose your preferred potential supervisors carefully. Depending on the research program, you will acquire technical and other skills that vary significantly between professors and labs, and you will become familiar with research approaches that are very distinct from one lab to the other. Keep your future career aspirations in mind when narrowing down your choice.

Reaching out

Like most of my colleagues, I receive tens of emails from graduate student applicants per month. This is on top of the hundreds of other emails each of us receives daily. Therefore, if you do not receive a response, it is not because we neglect you, it is because we are overwhelmed. A follow-up inquiry two or three weeks later makes sense. Following up more than once may not be worth your while. If the professor has not answered by now, they probably do not take students at the moment and simply do not have the time to answer every single inquiry. Do not take it personal.

When you inquire about the possibilities of joining a lab as a graduate student or postdoc, you may wish to consider the following:

- Given the number of inquiries a professor receives from potential graduate students, it is easy to spot if an introductory mail is generic (not tailored to our lab) and/or copy-pasted. And yes, professors are also getting really good at spotting text written by ChatGPT. So do not ever use AI-generated text in your application.
- In North America, the most appropriate form of address is 'Dear Professor Smith' or 'Dear Dr. Smith' using the last name or family name. In my case use Professor Geitmann.
- In the North American context it is not ideal to address the email just with 'Dear Professor'. To North American eyes omitting the name reads generic (although it may be meant to express the highest respect). Crucially, never start with 'Dear Sir/Madam'. If you don't know my gender, it indicates that you are not specific about your approach and are probably sending the same mail to hundreds of people. I cannot speak for my colleagues, but if addressed in a generic way (or worse, if addressed as 'Dear Sir' in my case) I won't bother looking at the rest of the mail or the dossier, let alone send a response.

Attachments

An initial email should comprise all the elements that allow me to assess your dossier:

- Motivation letter (see below for details)
- CV with detailed list of technical skills and 1-paragraph summaries of previous research experience
- Transcripts (informal is fine)
- List of references or reference letters

Cover email

Your cover email should ideally be short, one or two paragraphs. While it should capture my attention, it should not contain in-depth information which should instead be included in a detailed attached

'Motivation letter'. On the other hand, just asking whether I take students at the moment is not enough either. The cover email should mention:

- What level of position you are interested in (MSc, PhD, postdoc, graduate student internship)
- Where and when you graduated last or where you study currently
- A couple of sentences about your education, lab skills and research interests
- A sentence or two that motivate why you reach out to me in particular
- Refer for details to the attached Motivation letter

Motivation letter

The most important message in the motivation letter is the reason why you are approaching me. From the letter it must become clear that you specifically want to work in my lab, that you have skills that are relevant for my research program, that you have a concrete idea of what other skills you would like to learn, and that you would make a great contribution to my team. Therefore:

- Tell me why you want to do basic research, investigate cellular processes in plants, and use microscopy or engineering methods to do so.
- If your prior training does not obviously relate to my research, provide a very clear motivation why you want to change field or disciplines. If you are trained in 'plant breeding' or 'plant pathology', explain clearly why you now want to switch from applied to basic research and spend several years investigating the mechanics of growing plant cells.
- Do not just copy a few keywords from my web site. Instead, demonstrate that you truly understand what my research is about. Read several of my original research papers before writing the letter.
- Tell me about your prior research or lab experience. PhD applicants should summarize their MSc thesis and highlight the major outcomes. Postdoctoral applicants should summarize the main highlights of their PhD thesis and other relevant research experience. Provide details on your technical and bench skills. Be specific - if you have used 'electron microscopy' in your research, specify whether your work consisted in providing samples to a microscope technician or whether you learned how to operate the instrument yourself.
- Applicants for postdoctoral positions need to include a rough outline for a research project to be carried out in my lab. Also explain what your strategy will be to obtain a fellowship.
- Tell me about your career aspirations. Why do you want to embark on graduate studies or a postdoctoral research project?
- Tell me why I should consider you over hundreds of other applicants. Why will you make a great addition to my team? This is not necessarily only science based. Other skills might be relevant here, ranging from leadership skills to talents that make for a great team environment, such as playing a musical instrument, leading lab outings or organizing potluck dinners. In fact, to demonstrate that you read this document before sending me your application, mention the dish that you would bring to the first lab potluck!

Disclaimer

Other professors and other institutions may handle graduate student applicants differently. The advice given here pertains specifically to my lab.

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