Insights from the Network

What We Wish We Knew Before Starting Grad School in Science

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Deciding to pursue graduate studies is no easy decision. It’s a commitment of time, energy, and often financial resources, with the promise of intellectual growth and the pursuit of knowledge at its core. For science graduate students embarking on this journey, the path ahead may seem daunting, filled with challenges and uncertainties. However, within the scientific community lies a wealth of wisdom and experience waiting to be shared. The Stem Cell Network asked members of its Trainee Communications Committee (TCC) to provide some reflections on their journeys, and here’s some of the advice they had for others navigating the complexities of graduate school.
But if I had to choose three general, practical tips for the up-and-coming grad student, they would be the following:

- **Pace yourself!** Grad school begins with a steep learning curve! Start by absorbing as much as you can and ask a lot of questions along the way.

- **Read as much as you can** (strive for understanding over memorizing!). This evidently has many benefits (all the strongest grad students I know read a lot), but it also builds your confidence in your project and scientific presentations.

- **Create a reasonable (and sustainable!) work-life balance** and prioritize your mental health over everything. This supports your project too! It doesn’t come at the expense of it.
Hey incoming PhD students! Welcome to the exciting and bumpy world of academia. As you embark on this journey, remember to seek guidance from experienced mentors, connect with your peers, and maintain a healthy work-life balance. With support, camaraderie, and a bit of balance, you’re ready to conquer the academic landscape.

Here are my tips for success:

- **Seek mentorship and support.** Don’t go it alone! Find mentors who’ve been there, done that. They’ll guide you through the ups and downs of science and maybe even share some lab secrets.

- **Get to know your cohort.** Your fellow scientists are more than just lab partners – they’re your comrades in discovery. Take the time to bond, share stories, and celebrate each other’s victories. Science is better when you have friends along for the ride!

- **Seek a work/life balance.** Remember, science is your passion, not your entire life. Take breaks, enjoy hobbies, and don’t forget to occasionally unplug from the lab!

- **Challenge yourself.** There are a lot of opportunities to develop your science communication skills, and these are translatable skills that will help you no matter what career path you choose after graduating.

**Oreoluwa Kolade, PhD Student, University of Toronto**

Oreoluwa presenting his poster at TMM 2022 in Vancouver where he had the opportunity to speak about his research to fellow scientists
Learn to say no! You will be asked to take on a lot of responsibilities in grad school, whether it’s new side projects or extra-curricular roles – it’s okay to acknowledge that you aren’t able to take on another task, and politely decline. There will always be more opportunities to get involved or do cool science.

Make the most of your courses! Your required coursework is a great way to learn about something outside of your field. I’ve had the chance to take super interesting classes on bioethics, science communication and education, and learn concepts that I would have never come across in my day-to-day research.

Most importantly – make sure to enjoy the ride! You will meet lots of cool people!

No matter how many discussions I had with mentors and graduate students, nothing could have fully prepared me for the journey that is graduate school. It has been, and continues to be, the most exciting, yet frustrating experience of my life.

Despite there being a million (and one) things I wish I could tell the fresh-eyed Holly who had just graduated undergrad, here are three pieces of advice I would give to any incoming student:

• It’s okay to take your time! It’s really easy to get caught up in comparing your pace to other students, but your path in grad school is deeply personal. As much as no one wants to spend their entire life in school, think of your time in grad school as a marathon, and not a sprint. As long as you’re working towards your goal, you’re doing great!
Starting as a new PhD/MSc student is both exciting and terrifying. There are several things I wish I had known or thought about when I began my PhD. First and foremost, congratulations! The fact that you are here is a significant accomplishment. You’re about to embark on an extraordinary journey. It will have its ups and downs and will undoubtedly be exciting.

- **Don't compare yourself to others.** It’s challenging advice to follow, and you’ll probably do it anyway. Nonetheless, it’s crucial to remember that everyone’s PhD experience is different. Your research, your situation, and your personal circumstances are unique. You need to define success for yourself and focus on what makes you feel accomplished and progressive.

- **Have a life outside your PhD.** There's a misconception in academia that we’re all working 80-hour weeks and that having a life outside of academia is frowned upon. This is not true. The rhythm of a PhD is uneven, and you shouldn’t feel guilty for not working every spare moment. Many remark on the fact that I find time to work out, but exercise is what I enjoy in my downtime. If you don’t have free time to do the things that are important to you, that’s an issue to address.

- **It's okay not to know everything.** There will be moments during the first year of your PhD—possibly on the first day—when you’ll think, "Oh, they know much more than I do." When I finished my Chemical Engineering undergrad at the University of Toronto and moved to UBC to start researching how early life environmental exposures shape the immune system and disease outcomes, I attended my first lab meeting. Everyone was providing impressive answers, and it can be overwhelming. You might wonder how you could possibly learn all this. But remember, you will learn, provided you're willing to listen, learn, and ask questions.

Ahmed Kabil, PhD Candidate, University of British Columbia

Ahmed with his undergraduate mentee Charlotte Gilmore after participating in the 3 Minute Thesis Competition at UBC