

PHD MYTH BUSTERS

Our new SDS Page Coordinator, Tatiana Soares da Costa, busts some PhD Myths.

So you made the decision to do a PhD. It's a big commitment but nothing feels more satisfying than being called a Dr, right?! Do not under any circumstances start a PhD merely because you like the idea of having one, or because your family or friends think you should have one. But if you are passionate, you understand the hard work and commitment it entails and need one to get to where you to be, then fantastic! Next decision is to pick where to go. And this is where the first myth comes in...

Myth number 1: Stay in the same lab, it will be easier.

It may be convenient to apply to the same lab where you did your Honours or Masters project. Especially if you like the people, your environment and you are starting to get some interesting results. But don't forget to look around! Think about skills you may want to learn or areas you are interested in. Have a look at other labs in your uni, around your city or even interstate and overseas! Look at lab heads' webpages and past publications. Speak to students in the labs you are interested in. Don't forget that everyone is different and not everyone feels the same way about a supervisor. You need to ensure that your supervisor's research interests, expertise, personality, and availability are right for you. Your supervisor is there to guide you and you need to feel comfortable discussing ideas with them and taking constructive criticism. At the end of the day, your PhD is your project - and you will be the one who ultimately determines the direction of your research. Don't forget to look at scholarship opportunities as well. Deciding on your project is a big decision but one that should not be taken lightly. You will be devoting at least the next three years of your life to it, which brings me to the next misconception...

Myth number 2: You can finish your PhD in three years.

It can be done, believe me! I was working in the industry for two years before I decided to say goodbye to my nice pay cheque and start my PhD. I knew from the start I wanted to finish my studies in three years so I tried to set out a 'plan' for my thesis from day one. Crazy, I know! I thought about what my chapters would be and my plans B and C (and sometimes even D) if things did not go according to plan. You do need to remind yourself that even if you plan your experiments carefully, read a number of papers on the topic and discuss everything thoroughly with your peers, sometimes things do not work out the way you wish they would. Sometimes cells do not grow, assays do not work, and hypotheses are incorrect. You should treat your PhD like a financial investment, taking into account feasibility, risk and potential impact. Remember, the best PhD is not a perfect PhD, but it is a finished one! Be realistic about the results you want to obtain and have a coherent story that you can write as a thesis. If you can, think about writing your thesis by

publication. That encourages you to publish your work as you go and makes putting together (and marking!) your thesis so much easier, as it has already been peer-reviewed. Although, not everyone will be in a spot where they can do that, which brings me to the next point...

Myth number 3: Publish or perish.

It doesn't matter whether or not you think it's fair, your publishing record will have a crucial impact on your career. It can affect your prospects for employment, getting grants in the future and winning prizes. It may sometimes feel that although you are free to carry out whatever research you want, there is an expectation that you will come to some 'expected' conclusions and publish them. As mentioned earlier, some things don't always happen the way they were planned. It is important to try to publish any piece of work you have done during your PhD when you can. When you are thinking about your experiments, think of how they could potentially be written up as manuscripts. It's great to be ambitious and aim for high-impact papers, but don't assume that every study will end up in *Nature* or *Science*. Have a look at papers in similar areas and see what data are required to get into that particular journal. There is also the debate of quality versus quantity but that's a story for another day. Don't be disheartened if your paper gets rejected or if you receive harsh criticism. Although your thesis is a finite project, it can be easy for reviewers to find fault with it as they have an almost infinite number of things that they can criticise. Also remember that your project is likely to be ongoing within the lab after you finish so it does not mean that if you don't get any publications during your candidature, you won't get some later.

Myth number 4: Say goodbye to your social life!

A PhD is definitely not a job, and it's definitely not 9 to 5. There is always something that needs to be done but remember to strike a good work-life balance. One of the perks of being a scientist is actually the flexibility. Even though you may be in the lab until 9pm one day, the next day you may be able to go home at 2pm! Being successful does not mean you should work 24/7. It means you should work on the right task! Try to set a realistic plan every day, do your best to tick them off but if you are not finished, go home without feeling guilty. While you are at work try to focus on what matters and say no to distractions – you don't need to read your friend's comments about what they are having for lunch on Facebook. It is important to have a life outside your PhD 'bubble'. Take leave when you can, you are entitled to it like everyone else. You definitely do not need to say goodbye to your family and friends. On the contrary, you will need them to keep you sane!

Myth number 5: You are a Dr, now you know it all!

Remember that your thesis focuses on a very specific area. Yes, some of the skills will be transferrable but in no way does that mean you know it all. Always try to read more papers, go to conferences and seminars where you can expand your skill set and learn from your peers. Also try to find people with complementary skills to yours to be collaborators. Even though you have finished your university studies, it does not mean you stop being a professional student! Science moves at a fast pace and if you want to stay competitive, you need to keep learning for the rest of your life. After all, that's why we are all doing Science!

The Student's Page is coordinated by Dr Tatiana Soares da Costa, who is an NHMRC Early Career Fellow at the La Trobe Institute for Molecular Science (T.SoareshdaCosta@latrobe.edu.au).