

What to expect at the start of a PhD

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1st year PhD student in Antimicrobial Resistance

This time last year I was at the University of Liverpool, one term into my MSc. I am now beginning a PhD at the University of Exeter down in Cornwall on their Penryn campus. I'm specifically looking at whether non-antibiotic pharmaceuticals, things like painkillers and antihistamines, can select for antimicrobial resistance in freshwater bacteria.

With a PhD, you have a group of supervisors who are there to give you guidance and knowledge to help you complete your project. They can be academics from your department, but can also include non-academic partners. My supervisors are mainly academics, from Exeter and also from the University of Bath, but I also have a non-academic supervisor from AstraZeneca, who are the industrial partner for my PhD. In my opinion, having good supervisors is just as important as project choice. They're integral in helping direct your project, and until you become an expert in what you do, they will be the guiding force. You're going to be working with them for 3-4 years so it's an important relationship to get right.

I'm based in a lab group, composed of several principle investigators, several post-docs and around ten PhD students. I'm incredibly lucky to be a part of such a welcoming and supportive group. We go out to social events together, including heading to laser tag (you learn a lot about your co-workers at times like that), but, science-related, if you're not sure about something, there's always someone who will be happy to help or point you in the right direction.

There isn't a typical day in my 'PhD life'. I've mainly been reading up on the literature and starting to write a lit review, but I've also been working on deciding which compounds I'm going to screen, and starting to learn how to run my experiments. I've presented a poster at an internal symposium for microbiology researchers at Exeter, attended seminars from people both in my department and outside of my department and I've been all over the southwest for training for my doctoral training scheme (the people who fund me to do my project).

One of my friends in the lab recently asked me whether doing a PhD was how I expected it to be. I still don't know what I expected. Starting my PhD has been very different to anything else I've ever done, and it's very different to any taught university courses. The most important thing to understand, and something I came to realise pretty quickly, is that your project is just that, yours. Your supervisors are



there to guide and suggest things, but ultimately, it's your project, and you have the final say in every decision. It's disconcerting, but also exciting to be able to take your research in whichever direction you want to, depending on what the data looks like. ■