



SOS PAGE

SHORT DISCUSSIONS FOR STUDENTS PAGE

WHERE ARE THEY NOW?

We interviewed two recent PhD graduates to see where life after PhD has taken them.

Dr Lance Brooker completed his PhD from the School of Chemistry, University of Sydney and the Australian Sports Drug Testing Laboratory (ASDTL), National Measurement Institute (NMI), under the supervision of Dr Adrian George and Dr Rymantus Kazlauskas, respectively. He completed a year at the Belgian Doping Control Laboratory (DoCoLab) and returned to the NMI in 2011.



What was your PhD on and when did you submit?

My research, which was completed wholly within ASDTL, was tasked with further investigating the urinary metabolism of endogenous glucocorticosteroids for doping control purposes using both liquid chromatography-tandem mass spectrometry (LC-MS/MS) and gas chromatography-combustion-isotope ratio mass spectrometry (GC-C-IRMS). I began work in 2006 and finally submitted my thesis in January 2010.

How did you find your current (and previous) postdoctoral position and why did you choose to take it?

I was actually very lucky! In early 2009, I met the then Deputy Director of the Belgian Doping Control Laboratory (DoCoLab), Professor Dr Peter Van Eenoo, at an anti-doping conference in Cologne, Germany, where I was presenting some preliminary isotope ratio research. Peter informed me that their lab was soon to acquire a brand new isotope ratio mass spectrometer and enquired whether I would ever be interested in coming to Europe to work. I obviously said yes! So, long story short – in February 2010, I moved to Gent (in Flemish-speaking Belgium) to complete a one-year stint as a guest researcher.

My Belgian lab colleagues often joked that I only came to Belgium to watch cycling (of which I am a big fan), but really it was the opportunity to work on state-of-the-art instrumentation and to experience real European culture.

What skills have you taken from your PhD, both academic and otherwise?

Certainly, being immersed in a routine testing laboratory for the duration of my PhD, I gained knowledge and skills that are not really covered while working in university laboratories. I became familiar with lab management topics concerning turnaround times, efficiency, supplies, customers, prioritising work flows, etc. Also, the National Measurement Institute is a world leader in chemical metrology, so accreditation, quality control, traceability and measurement uncertainty are integral aspects of the work conducted. Lastly, through the interactions with my colleagues and supervisors from ASDTL and from other international doping control laboratories, I have gained a great deal of specialised knowledge regarding steroid analysis for doping control, of which I had practically zero before I started at ASDTL.

There is a lot of emphasis on gaining further research experience in another lab. In your experience, do you think it is important to do this and why? What would you look for in a lab?

It was impressed upon me while completing my PhD at the NMI, that gaining additional, external experience would be extremely beneficial to my later career prospects. In our field of research, that implied traveling overseas, as ASDTL is the only World Anti-Doping Agency-accredited lab in the Australasia region, and the majority of anti-doping laboratories are located in Europe and North America. Obviously, it would also be perfectly acceptable to postdoc outside the specific field of anti-doping analysis, but I felt that this area was so small and unique and yet so important that it was worth taking the 'risk' of perhaps becoming too specialised. Time will tell. I think the extra experience I gained while in another lab was crucial to my improvement as a researcher, and so I continue to recommend and encourage others to do so as well.

I was so lucky to find a lab where every day was guaranteed to be a fun day at work, and for that reason the year flew by too quickly. I would not have survived a year away alone where I did not enjoy myself at work. I suppose, then, that finding a lab you know you will be comfortable in may be

more important than the scientific opportunities presented, especially if it involves moving a large distance away from family and friends.

What do you enjoy most about research?

When samples are running smoothly and instruments aren't broken! Then the results come easily!

Where do you see yourself in five years' time?

I aim to still be working here at ASDTL, having further cemented my knowledge of steroid analysis and doping control (as I still have so much to learn!). As the NMI will move into a new laboratory in mid-2012, I hope that by then the lab has settled in comfortably and that through further linkages and collaborations with universities we are able to conduct more quality research to improve the anti-doping capabilities of Australia.

What advice would you give to upcoming PhD graduates about their next step?

With the luck that I had arranging my position overseas, I perhaps am not the best to ask for advice! However, I did try to 'network' effectively at conferences and meetings if only to gain an insight of what other research placements were potentially available and to know who to contact. It can't hurt to start thinking about these post-PhD ideas early enough, so that you may be able to have things arranged before you have submitted.



Dr Lauren Wright completed her PhD in the Diabetes and Obesity Research Program at the Garvan Institute of Medical Research in Sydney. Since receiving her doctorate in November 2011, she has been working as a postdoctoral fellow in Padua, Italy.

How did you find your postdoc position and why did you choose it?

I chose this lab originally because I was reading through a conference speakers list, and I used that as a basis for some good old-fashioned internet stalking. I contacted labs that researched topics I was excited about, and went from there. My current position wasn't advertised, I just happened to email at the right time. Applying for advertised positions is useful (I went through this process too), but I like the personal touch you get from directly contacting a PI. It also allows you to seek out what you really want to research. My final decision to come to this lab was based on three things: 1) the research was something I wanted to work on; 2) my gut feeling was that the lab and PI were good people; and 3) it was in ITALY, and that's just awesome.

What skills have you taken from your PhD, both academic and otherwise?

Looking back on my PhD, I realised that I have come out a very different person than when I started (I attribute this to being surrounded by brilliant mentors). Probably the main things I have gained are confidence, knowledge, and a scientific mind. I've learnt to believe in my science, to know the positives and negatives of each experiment, and to be able to deal with these questions when they are (sometimes very rudely) asked.

There is a lot of emphasis on gaining further research experience in another lab. In your experience, do you think it is important to do this and why? What would you look for in a lab?

Absolutely! Staying in the same lab is fine for a year or so - it's a great time to finish up experiments that didn't make it into your thesis, to complete a manuscript, or just to consider your postdoc options. But your first postdoc should stretch you, engage you, and teach you new techniques and ways of thinking. None of this will happen if you stay in your current lab. Move on. You should look for a lab that can teach you a few new techniques, and that you feel has a good 'vibe' - i.e., somewhere you think you will be happy. Being the newbie again forces you to adapt and often makes you feel like a complete moron. This is much easier to deal with in an environment that you enjoy, with people who will help you.

What do you enjoy most about research?

I really enjoy the scientific process, having a blank slate and being able to ask and answer questions about the wonderfully intricate processes that occur in living cells. Having the freedom to drive a project in the direction you want is something that not many other workplaces can offer.

Where do you see yourself in five years' time?

Truthfully, I have never been one for planning that far ahead. I really enjoy postdoc-land so far, so in five years I will probably be working through my next position (wherever that may be). But I like keeping an open mind, so maybe I will join an anti-whaling ship, write a novel, or figure out the world's most perfect lasagne recipe.

What advice would you give to upcoming PhD graduates about their next step?

First and foremost, decide if you want to really do research, or if you want to sidestep. There are many options for science PhDs, not only the traditional 'research or industry' roads. Advertising, consulting, and other businesses love hiring PhDs because they have inquiring, problem-solving minds.

If you decide research is the way to go, contact labs that do work which inspires you. Work on your interview technique and do it right - it's often an entire day spent with a lab (if you visit them), so you don't want to blow it. Know what you want to do, be confident, be excited. And if possible, apply overseas for your postdoc and experience another part of the world. I highly recommend it!