

2007 Marsden success

The secret to success - finding the thing that makes me tick

Debbie Young of Faculty of Medical and Health Sciences, the University of Auckland, shares with us many turning points in her search for the job that she loves — biomedical research of the brain, the type of job, as she describes it, “that does cutting edge science at the bench but also one that translates the basic science findings to the clinic”.



Photo: Steve King

I often think how lucky I am to have wound up being successful in a job that I absolutely love. I think it was my destiny - as a scientist, maybe I shouldn't believe in karma - but I do. I had an interest in biology at a young age - in particular how the human body worked - but I didn't particularly excel at undergraduate level at university and drifted along to complete a science degree. I don't think any of my teachers thought I would have a successful career in science. I went on to complete a Masters in Biochemistry and one of the best pieces of advice my supervisor gave me was “don't embark on doing a PhD because it seems like the next logical step, only do it if you have the burning desire to stay and contribute in science”. I knew I wanted to stay in science but not in which area, so I took that advice and worked for a few years as a Research Technician, first at the University of Otago and later at the University of Auckland. This was real eye-opener into the breadth of biomedical research being conducted in NZ.

The next major turning point in my career happened when I applied for a job as a tech to do quality control work for a local pharmaceutical company. I experienced an epiphany at the interview - I went in thinking I wanted the job because it paid more - I left thinking, I don't care

about the money, I don't want to give up doing biomedical research - this is what I want to do. So I started looking into opportunities for PhD study. I was interested in the brain - one of the last frontiers in biomedicine - and undertook a PhD in Neuroscience. Fate intervened again when I was looking for post-doc opportunities. A fellow student and I conducted a whirlwind tour of several U.S labs including that of Matt During, a New Zealander based at Yale University. I have two enduring memories from that trip; Matt racing into New Haven train station in his Porsche to pick us up - shattering the typical male scientist stereotype - and Matt taking us to see one of his research study patients, a woman with epilepsy who had microdialysis probes implanted in her brain. (Microdialysis is a technique used to measure neurotransmitter levels). All I could think was “WOW - this is the type of lab I want to be in” - one that does cutting edge science at the bench but also one that translates the basic science findings to the clinic.

It's a difficult decision to make to uproot yourself to another country if you have family here. As it turned out, fate intervened again - Matt came back to a Chair in the Dept of Molecular Medicine, University of Auckland. I joined his lab as a post-doc and have risen through the ranks over the last 10 years to now co-direct the lab with Matt. My research interests range from trying to understand how environment affects brain structure and function, to developing new gene therapy treatments for brain diseases. Our latest Marsden-funded work aims to develop a novel way of specifically targeting and regulating gene therapy treatments in cells that may be vulnerable in brain disease. Success could mean this type of treatment might come into more mainstream use in the future.

There have been many highlights for me in the last ten years - prestigious publications, several prestigious awards, major grant funding, and being part of a team that conducted the world's first gene therapy human clinical trial for Parkinson's disease. I attribute my success to mentors like Matt who have ignited my passion for biomedical science and my family, who have supported me throughout including a husband who gave up his job to look after my biggest achievement to date - Elisha, my three year old who loves counting down to Saturday because it's “stay with Mummy day.”