

What a difference a mentor can make

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What will motivate you to get up each morning and go to work? This is one of the questions I raise with students when discussing programme choices and the careers they may lead to. For me the answer to that question is having the opportunity to contribute to good decision making by the staff and students I work with in the School of Biological Sciences (SBS) at the University of Auckland.

Excellent mentors have made a significant contribution to the twists and turns of my career, the earliest one being my mother, who was passionate about enabling her daughters to be well educated so that they would have real career choices. We were sent to Baradene, a relatively small Catholic girl's school in Auckland, and I was fortunate to be taught by some dedicated and progressive women during my time there. The first key decision point for me was whether to continue with arts or sciences when I arrived at university. These days a conjoint BA/BSc would have been the obvious solution, but in the absence of that option I elected to go for the science route because I felt it could lead to a wider range of careers. I majored in biochemistry and microbiology at the University of Otago and then transferred to Auckland to enrol for an MSc in the Department of Cell Biology.

At this point I met the mentor who would have the most profound influence on my career, my supervisor Dick Bellamy. At our first meeting he expressed great interest in having me as a graduate student in his lab and outlined possible projects investigating the structure and replication of a double-stranded RNA virus he was studying. He then gave me the first of what would be many sage pieces of advice – I was sent away to talk to a number of other potential supervisors in order to give me the best chance of choosing a compatible supervisor and a research topic that would really work for me. I immediately noticed that not all academics operated this way – I had an excellent

undergraduate record and some of them pushed quite hard for an immediate decision to join them. Altruism, I have come to realise, is a key characteristic of good mentors.

Another sign of a good mentor is one who expands your horizons by making you aware of options you may not have considered. Dick proved to be an excellent supervisor, readily available to explain the science, quick to articulate the value of my work, and soon encouraging me to think about continuing on to a PhD. This was not something I had thought about – nobody in my family had a university degree and at that stage another 3-4 years' study seemed like a life sentence on top of the 4 years I was completing. By the end of my MSc year I trusted his judgement enough to line up a PhD scholarship, but I also had some other options – my best friend thought it was time we were setting off on our OE and my boyfriend had just graduated with an engineering degree and taken a job at Forest Products in Tokoroa. It was with some trepidation that I took Dick out to lunch to confess to him that I had applied for secondary teacher training – what else was a girl to do if she planned to move to the middle of the North Island?

After three years' teaching high school chemistry and maths, I came to the conclusion that I loved working with students who wanted to learn, but I was not the right person to convert the ones who had alternative ambitions. I also realised how much I had enjoyed research so we decided to move back to Auckland and see what we could find. Dick and I had stayed in touch after I left his lab and when I told him about our plans he helped me find someone with funds to employ me. Fortunately the contract was a short-term one because a few months later I learned that we were about to start our parenting career by having twins! I thought this might be the end of Dick's plans for me but his next suggestion was a crucial one – when the boys were about 18 months old he asked me if I would teach the lab component of a large Stage 1 course in which he was developing a cellular and molecular biology module. Daycare was not well established (or accepted) in those days in New

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Zealand but my mother was very supportive and promised to look after the boys for the month I would be working. The plans were almost derailed when she broke her leg not long before the teaching was to start, but I found an alternative carer and began what was to become an annual break from suburbia for the next eight years (also producing two more babies along the way). Apart from mentally recharging my batteries, this utilised my teaching experience and kept me in touch with science at a time of rapid change – in Dick’s lab we were learning how to manipulate DNA and clone rotavirus genes, techniques unheard of when I was an MSc student.

Despite my occasional disregard for his advice, Dick was endlessly patient and continued to suggest that I come back to work part-time. Eventually I did just that, signing on as a part-time, temporary junior lecturer in 1988 when my youngest son was 2 and the other three were all at school. My funding was cobbled together from university and HRC sources, and over time, Dick increased it by building increasing support into new grants he was writing. A key contribution to the success of this arrangement was that he supported my family priorities and was very understanding when broken limbs and notifiable infectious diseases disrupted my childcare arrangements. The academic learning curve was intimidating, given how long I had been away from science, but my annual teaching stints meant I had good networks in the department and I had great lab mates who were always prepared to answer my many questions. The matter of my now long-overdue PhD was mentioned from time to time and even though I was not completely convinced it was something I could fit in to a fairly busy phase of my life, I enrolled part-time once all the boys were at school. My career would have been very different if Dick had not continued to look for ways to make this happen, and it also gave me valuable training in the art of graduate supervision, a significant component of mentoring activities in the university environment.

I graduated with a PhD in Biological Sciences in 1997, by which time I was lecturing in undergraduate cell biology courses and, together with another postdoctoral fellow, looking after the day-to-day running of Dick’s lab as he was by then the inaugural Director of SBS. I had published three papers during my PhD and was Associate Investigator on a number of successful grant applications, so my skill set had increased significantly since I left suburbia ten years earlier. I was by then 0.8FTE and very happy with this arrangement but I was about to leave my comfort zone again, care of my illustrious mentor. In 2001 Dick was appointed Dean of the Faculty of Science and his next suggestion was that I step up to the role of Deputy Director (Academic) in SBS to support his replacement, the previous DDA. My secondary teaching background was seen as a significant advantage because we were establishing the model of large Stage 1 core courses at that time so it was important to understand the school-to-university transition. Raising four small boys had also taught me excellent strategies for people management!

I was to serve as DDA for ten years and it was during this time that I had the opportunity to start doing some mentoring

myself. I no longer had time to act as primary supervisor, but I continued to teach in undergraduate courses and also became more involved with advising students contemplating the transition to postgraduate programmes. At this time we also began to see changes in employment behaviour; pre-2000, resignation from a tenured academic position was unusual but funding based on university rankings and increasing competition for grant support changed the landscape. As vacancies arose we recruited a number of young postdoctoral fellows to balance our top-heavy staff profile and I quickly realised that there was an urgent need to mentor their transition to their new role rather than relying on them picking up what they needed by random chance and/or some sort of academic osmosis. The University’s mission of increasing PhD registrations also resulted in more competition for postdoctoral fellowships and in SBS quite a number of those appointed aspired to permanent positions here rather than the more mobile, internationally focused pattern of the past.

The opportunity to create my own version of what I have experienced for a new generation of young scientists has been uniquely satisfying. The digital era has provided many advantages and efficiencies, but students still need access to good personalised advice. Common examples include decisions about whether to proceed to further studies or start looking for employment, how best to compete for scholarships or places in prestigious programmes, and the advantages and disadvantages of staying in New Zealand v. going overseas. My current staff development role focuses on recruitment, early-career support, career planning via the annual performance review process, and coordination of the preparation of applications for promotion. My approach owes much to the strategies Dick used and, having experienced significantly affirmative attitudes during my own career, it is a special privilege to act as a role model for female students and staff. I am committed to the creation of a culture that makes it possible to combine family and career aspirations in science and I was deeply honoured to receive the inaugural AWIS mentoring award from Dame Miriam Dell in July 2014.

So how do you find a mentor? There is often a significant element of serendipity and personal chemistry is also an important factor but knowing you need one is a good start. In science likely candidates will include academic advisors, your lecturers, postgraduate or postdoctoral supervisors and senior colleagues. Be prepared to take the initiative and don’t expect it to be a one-way relationship – many of my mentees have come to me in another context but took up my invitation to make use of my open-door policy in the future. Over time they have given back to me in many different ways and a good number have maintained the contact once they have left university. Perhaps the greatest satisfaction for a mentor is to see new ones emerging, becoming successful in their own careers and paying you the ultimate compliment of treating others the way you treated them. Being a part of this mentoring cycle ranks as a highlight of my career.