



bright future – shining stars

Jennifer Martin

Winner of a Smart Women – Smart State Award in 2005, Jenny is a world-leading research scientist in the field of drug design and protein structure. Jenny was the recipient of the 2005 Roche Medal from the Australian Society of Biochemistry and Molecular Biology and was the first woman president of the Society of Crystallographers in Australia and New Zealand.

It's a wonderful pleasure to be here, especially because I wasn't able to make it to last year's event because I was in Florence helping to organise a conference so you can see science actually has a lot going for it, there's a lot of travel involved. I'm going to spend my five minutes telling you what I think or what I love about being a scientist and probably start with the first thing, which is why I got into science in the first place.

What brought me to being a scientist was the buzz that I get out of being the first to discover something. It's something like being an explorer, I imagine, in the centuries gone, where you're the first person to find a new country or a new plant or a new fish. Here I am working on protein structures that are involved in disease and I can see using the techniques I use, what those structures look like in three dimensions, and when I know what the structures look like, I can identify hotspots on those disease proteins, and use those hotspots to help to develop new drugs. And that's the second thing that I would like to tell you about, is that scientists actually help to create things that help our community, so drug design in my field is developing new drugs that treat diseases that we can't currently treat or making better drugs that don't have the side effects that the current drugs have.

I've already touched on travel as one of the things that happens in science and just to give you a feel for my daily, perhaps not my daily life but my yearly life - in the last year I've been to Florence, in Italy, to speak at a conference there. Earlier this year I was in the US, travelling around several different states and I gave a talk in May at a conference, at an organised conference there. In a couple of weeks time, I'll be in China and then a month after that I'll be in Japan and next year I'm going to the UK twice, all invited to give talks about my research, which is starting to get out there and be seen. So obviously travel is one of the things I love about it, which is a good thing because there is a lot of travel involved.

I've also studied, I started off as you've heard already, in Melbourne as a pharmacy student and I've ended up in Queensland but by a very circuitous route. I actually studied in Oxford in the UK for my PhD and I spent two years in New York at Rockefeller University, so travel is something that is a really good, positive part of science and I love that aspect. The other thing I guess is that I'm also able to represent my country and when I was a young student about your age, I used to love watching cricket and football and football as a Melbournian is AFL, not the rugby league. Never mind, it doesn't really matter. I used to love watching it but I knew I would never have the chance to represent my country because I was hopeless at any sport, but here I am now, I'm actually going out to conferences and representing my country or my university or my state or my science at places around the world. And to give you some examples of the things I've been involved in, one of the aspects of my research involves x-ray diffraction and we need x-ray sources and we have facilities here at the University of Queensland where I work, to do that.

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But we're also developing a major new facility in Melbourne, strangely enough, a synchrotron source, which is worth about 200 to 300 million dollars, a huge major investment for a national research facility and I'm the Queensland representative on the National Scientific Council for that development of that synchrotron. I'm also on the council of Questacon, which you may have heard of, as the National Science and Technology Centre in Canberra, so I'm often in Canberra and helping to develop new science exhibits in Questacon that represent some of the new technologies that are coming out.

I think the last thing I was going to say about what I love about being a scientist is that I get to work with brilliant people every day and there's nothing better than that.



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