



Emerging Leader winner – Ben Hogan

Interview with Ben Hogan by Larisa Haupt and Guillermo Gomez, QLD State Representatives

A/Prof Ben Hogan - Group Leader at the Institute for Molecular Bioscience (IMB), The University of Queensland and NHMRC and National Heart Foundation Co-funded Career Development Fellow. Ben recently received the ANZSCDB Emerging Leader Award and we interviewed Ben for his thoughts on becoming a successful leader in cell and developmental biology.

- Where are you from?

I grew up in a small town in central Victoria called Moonambel. We had one pub and one shop. My family home was (still is) a mud brick house off the power grid and on solar since the '80s. Chickens, goats, rabbits, veggie gardens, no TV, lots of books and the local cricket club - it was a pretty nice way to grow up.

- How did you get where you are now?

I followed a fairly traditional route to becoming a group leader, undergrad, honours and PhD at Melbourne Uni. I got lucky with my PhD and had a supervisor who invested time and effort in my development (Graham Lieschke) and has continued to support and mentor me. After a 4-year postdoc in the Netherlands, I was offered a position at the IMB. I hadn't been to Brisbane before the job interview but I decided to give it a crack.

- Who do you admire personally and professionally?

The earliest Drosophila geneticists. Their colleagues must have thought they were nuts: pushing fruit flies and maggots around a dish all day and mapping genes for anything that looked unusual.

- What do you think are two of the key decisions you made that helped you achieve the Emerging Leader award?

Not being cautious with questions and taking risks with the lab's direction. We did a very big forward genetic screen in our founding years, which could have gone differently, but in the end the risk was worth it.

- What do you like to do when you are not working?

Running, hiking and scuba diving are right up there if I take a break or have the freedom. But most often now it's having some Dad time with my two daughters of 3 and 6, they are great fun.

- Are you often mistaken for the golfer Ben Hogan?

Certainly not if I'm on a golf course. But I do get a few comments every now and then.

- What is the worst experiment you have ever done and why?

Taking my daughter to the swimming pool after she'd had a strawberry milkshake, when she had a stomach bug. The results were conclusive.

- What is your favourite thing about what you do?

That it progresses. Having a job that changes focus year to year and constantly asking new questions in the lab is exciting and motivating.

- What did you want to be when you were a kid?

A ballerina. My Mum likes to keep reminding me I said this as a 3 year old.

- If you weren't a scientist, what would you be?

Something more active. Like diving instructor or pub owner.

- What's your next biggest challenge?

Not going stale or getting comfortable. I think it is important to keep taking risks and asking new, bigger and deeper questions.

-Can you give us a brief bio of your professional achievements to date?

I completed my Honours (2000) and PhD (2004) at the University of Melbourne using the zebrafish model to study the development of the early haematopoietic lineages in the embryo. In 2006, I moved to the Hubrecht Institute in the Netherlands and applied large-scale zebrafish forward

genetic screening to study vascular development. There we identified new molecular regulators of lymphatic development, including Ccbe1. In 2010, I returned to Australia as a group leader at IMB, UQ. Together with my team we discovered new and unexpected molecular regulators of vascular development, defined the mechanism of Ccbe1 function in vascular signaling and delved into the cellular behaviours that control vessel morphogenesis during embryonic development, that led to the publication of several articles in Nature Genetics, Genes and Development, Cell Reports, Developmental Biology and Human Molecular Genetics.

- What do you think a postdoc should avoid if he/she wants to become a group leader?

Their comfort zone. By moving abroad and picking a project that is bold and will challenge you, you have a much greater chance of making a significant discovery, you expose yourself to new research cultures and develop unique skills that you can apply when you start your own lab.

- What do you think are the research areas that will become more important in the next 5-10 years and why?

Two of my favourite things to think about in cell and developmental biology at the moment are:

(1) Phenotypic heterogeneity and noise at the level of single cells in tissues – because we have been looking at an average output of all cells in a system, which results inadequate when you think about it.

(2) Mechanical forces in development and homeostasis. Its hard to study what you can't see and can hardly measure but it seems likely that we underestimate how much physical forces influence cellular signalling and gene expression.

-If you had the chance to change one thing within the funding structure in Australia, what would you change?

You could endlessly rearrange the way that the funds are applied for and distributed, and there are probably ways to improve these processes. However, ultimately there is not sufficient funding in the system to support the entire worthy and high quality research.