WA State Representative Oliver Rackham interviews 2017 ANZSCDB President's Medal winner Professor Peter Currie. Peter is a world leader in the development and regeneration of muscle and has been awarded the Eureka Prize and the Paul Walker Award in recognition of his groundbreaking research. He is currently the Director of the Australian Regenerative Medicine Institute at Monash University.

Hi Peter, Congratulations on receiving the ANZSCDB President's Medal for 2017! Early in your career was there an important choice you made that played a critical role in your scientific life?

Yes the decision to go overseas to do my PhD was the critical decision. Back then in the dark ages of the late 80s virtually no one went overseas for their PhD. Doing my PhD in the US exposed me to contact with the best scientist in my chosen field and opened my eyes to what was possible to achieve if you were a motivated scientist.

Peter Currie as an Honours student in the Batterham lab at the Melbourne University Genetics Department with his lab colleagues.

You worked with *Drosophila* during your PhD before moving on to zebrafish – how important do you think the choice of a model system is to answering scientific questions?

The question is always the most important thing and what is the best model to answer it in. Having said that the timing was terrific for me. *Drosophila* was and probably still is the Rolls Royce developmental system and it attracted the elite minds to work with the model. In the US it was a very competitive field to be working in *Drosophila* development and I could see it would be tough to be creative and different and survive in a mainstream developmental question in this field. I was attracted to applying invertebrate style forward genetics to long standing unresolved questions in vertebrate development. Zebrafish fitted the bill perfectly. Certainly being in on the beginning of a new model system and getting the reward for bravery to adopt a new system I think certainly helped my career.

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

Without a doubt I would be a historian, most likely classical history, likely late republican early imperial Roman history. History has so much to offer in terms understanding the human path and explaining who we are and how we got there. It fascinates me.

Do you have a scientific role model?
Of course I have many but I separate them into two camps. I have Institutional role models who are amazing science leaders that I very much admire like Paul Nurse who was in charge of the ICRF in London when I did my post doc, my old institute director in Edinburgh when I ran my first lab Nick Hastie and Nadia Rosenthal who was a very inspirational science leader to work with. Good science leadership is rare and these individuals can really shape and influence the way science is done.
I have science superstars who I greatly admire for the clarity and beauty of their science, such as the Harvard Professors Cliff Tabin and Olivier Pourquie and Nobel Prize-winner Christiane Nüsslein-Volhard. I also have local heroes such as Peter Koopman, Richard Harvey and Patrick Tam who have made sure Australia Developmental Biology has a very strong international profile and have worked hard to promote the discipline internally.

What do you like to do when you are not working?
Unsurprisingly I am a keen snorkeler and diver and like to be in the water poking about. I relax best around water and I also like to sail. When a chance presents itself I like to read (histories usually) and I play classical guitar very badly now….

What is the best advice you were ever given?
Allow yourself the creative freedom to make mistakes, just don't make the same one twice…

What are your most and least favorite things about working as a scientist today?
I'm addicted to discovery science so I like the thrill of the chase and the challenge of always inventing and learning new approaches to get on top of solving your question. I really like collaborating with clever people and being amazed by my colleagues. What other job can you get up in the morning and change completely what you are doing based on a conversation over coffee?
I actually don't have a lot of negatives to say about science today. Some folks moan about funding, writing grants and the ups and downs of getting money to do your work. Its part of the gig as far as I am concerned. Certainly we should all act to shape your environment in a positive way and act as an agent for positive change but don't waste energy on complaining about it. My main issue is a self inflicted one, I wish I had more time at the bench as its something I really enjoy doing and derive a lot of pleasure from. Nothing beats making a discovery yourself, doing an experiment and getting an answer.

What's your next biggest challenge?
My personal science frontiers are around understanding organ growth, which I think is one of the last great mysteries of Developmental Biology, and also understanding the evolution of organ form in the vertebrate lineage using the non model systems we have developed. Also I think now the zebrafish system has matured to the point that its disease modeling credentials are highly sophisticated and much potential exists in this approach. We have some amazing tools now in the zebrafish system and I am excited to apply them to these problems. I think it's going to be an amazing decade of science.

What has been your most memorable moment in the lab?
There are number that standout. Looking at the zebrafish embryo for the very first time was amazing and at the same time 5 years later looking at a shark embryo for this first time and the sheer beauty of both these developing systems. In the lab there have been moments of the sheer joy of discovery, always at the microscope as that is always where the action is for me.

Which is your favorite country to travel to?
Italy, from where I am writing to you now. Nothing and nowhere else compares….