

Presidents Medal winner – Sharad Kumar

Interview with Professor Sharad Kumar by SA State Representatives Sarah Boyle and Sophie Wizniak

You have moved around the world a lot over the course of your career, what advice do you have on staying productive scientifically when moving to new cities or scientific fields?

It is inevitable that moving labs and projects will cause disruptions. It is a trade-off for potentially bigger career gains in the future (provided that is reason for move). I really think that if you are productive in every job, it will carry you through leaner times. Before moving I always ensured that I had completed most experiments for the project, so that I (or the PI) can write up the data at a later date. That way you ensure that you have publications coming while you are busy settling in a new place.

What has been your most memorable scientific discovery, an experimental result that took your breath away?

It is hard to pinpoint one single experiment or discovery as I am easily excited by all new and interesting-looking results (though in recent years I have learnt to temper my enthusiasm and expectations!). In early days of cell death research, most things we did were new and exciting (I could barely wait to get to work most mornings). However, if I really had to pick one, it would have to be the realisation that one of the genes I had cloned a couple of years earlier was one of the first mammalian caspases. This simultaneous made me very excited and terribly nervous, thinking that I may have contributed something very significant to science and that I got scooped before I knew what it was!

You worked in Japan for some time and I've heard you've acquired a taste for Japanese cuisine, do you have a favourite food or cultural experience to share?

I love all kind of everyday Japanese food, with the exception of natto (made from soybeans fermented with *Bacillus subtilis*). In Japan preparation/cooking is done primarily to enhance the natural flavours of the food, so it is always fresh and 'simple'. This allows one to actually taste food, and once your tastebuds become trained for that, it is hard going back.

The cultural experience that I really miss (besides universally strong work ethics) is Japanese attention to detail. Whether it is the design of an experiment or a public place, a Zen garden or a ceremony, the customer service in a department store or the way one folds and puts away a futon every morning, you know it will be done meticulously.

Pictured (below) is Sharad at ComBio in 2005 with this years' Nobel prize winner Yoshinori Ohsumi (bottom left) for his discoveries on mechanisms of autophagy, one of Sharad's passions. Who is your pick for the next Nobel prize in 2017?

There will be a Nobel for CRISPR in the coming years- I just hope it goes to the original inventors (half a dozen claim to be deserving). Another one to watch is Jeffery Gordon for gut microbes.

What's the most important aspect of being a good mentor to students and postdocs in your lab? Any tips for other lab heads out there?

I do not think there is a magic formula to be a good mentor. Everyone is different, so how we relate to others is different and this is often based on our personal experiences. As scientists we are rarely trained in managing others, so if we are fortunate enough to have a group, we will usually develop a unique style that suits the size and personalities within a group. That said, it does help to be honest and kind, communicate effectively, think back of the things you wanted from your mentor but were too afraid to ask, keep expectations realistic, ensure that others realise their potential (whatever

that might be) through proper training and tools in the art of science and have the freedom to follow their ideas. In tough funding climate and diverse demands on PIs, it is often easy to overlook the needs of others in the lab. In our case, regular meetings and retreats are useful tools for effective communication, and having a small team of experienced hands to help-out is priceless.

