

> IUBMB TI – Your Monthly Minutes

Your favorite monthly newsletter



And another minute for you!

It is time to introduce Naveen Vankadari! We are hearing from a very experienced scientist and the minutes will be packed with insights and advice. Thus, without further do, I let you jump in and hopefully you take something useful away for your own career:

> *Who Naveen is*

Grew up in
India

– Research Fellow in
Melbourne

Experienced
Academia &
Industry

– Author of quite a
few papers



I am an infection biologist with a foundation and structural biology and protein engineering. During my PhD journey, I delved into the intricacies of biochemistry and molecular biology. I connected the purification of proteins with the fascinating world of crystallography and ventured into genetic knockouts and conducted various essays to decipher their functions.



Currently, I'm overseeing multiple projects that investigate the dynamic interplay between viruses, bacteria, and host cells during infection. My research ranges from bench to bedside and involves techniques such as cryo electron microscopy and computational biology.



Ever since my masters I was interested in clinical microbiology. The constant battle between immune cells and pathogens is fascinating to understand and offers lots of space for innovation. This is the reason I always wanted to research on the molecular interactions and extend our view on how communication between cells is important for the development of therapeutics and treatments

Naveen, you have been working in the industry, at Merck, share some of your experiences with us

Yes, I have been making my way to a Senior Scientist at Merck Millipore, where I specialized in developing in vitro diagnostic and molecular biology tools. I have noticed that many young scientists tend to have very ambitious ideas but the consideration of feasibility is as important. It's all about evolving your initial idea. First, you conceptualize it, then you validate it with the proof of concept, create a prototype, and finally, you arrive at the finished product.

IUBMB TI – Your Monthly Minutes

Your favorite monthly newsletter



Corporate Precision

What is really amazing about working in a big company is that everything is clear cut and well documented. Initially it is very tedious but later it pays off. You will always be able to review in detail what you have done. Also, there was a much greater emphasis on reproducibility. Not before you get your experiment to work perfectly well, you repeat it three times and just then hand it over to quality control for them to further corroborate your findings.



Learning to Pitch

My experience at Merck provided valuable insights into the art of pitching projects effectively. In academia, we just focus on sharing research ideas for funding. But in the industry, pitching goes beyond presenting the idea or innovation itself. It involves a comprehensive consideration of the financial aspects, navigating company structures as well as current competitors and communication of your visions as crucial parts of the process.



Think It Through

Before joining a PhD, ask yourself, why do you want to do it? It is not a normal job. It is going to take significant amounts of time and requires a whole lot of resilience, your passion has to make up for all the hours you spend, otherwise you will burn out easily. Remember, in case you could imagine to switch, the industry is not just looking for PhDs. This has nothing to do with you not loving science. If you just want a “good job”, a PhD is not the right option.



Our Future

I am interested in a PhD or honours project where I can mentor ECRs and a supportive way in a mentor-mentee style. Through workshops and symposia, we can share our experiences and help others learn about funding and different career paths. This can also help PhD graduates apply their skills effectively in new careers. That is important because many PhDs have valuable skills they may not know how to leverage.

> All that glitters is not gold

In my opinion, doing lab rotations before starting a PhD is crucial. Especially, when you are considering studying abroad returning might not be as easy due to visa restrictions or personal reasons. It's important to remember PIs can easily say impressive things and that attending a prestigious university does not guarantee having a great supervisor. However, your supervisor plays a critical role in your project's success. From a distance, everything may seem tempting, but you should understand that even tasks like coding can be quite monotonous.

Certainly, valuable experiences

–



–

Next time, our chair speaks

Trainee Initiative