



Asst Prof Sierin Lim is a lady of ultra-fine pursuits, on the nano-scale, to be more precise. The winner of the L'Oréal Singapore for Women in Science National Fellowship, her interests lie in researching things that are too small to be seen by the naked eye, such as protein nanocages for drug delivery and medical diagnosis

by Lester Kok

Have you always wanted to be a scientist? When I was in high school, I already told my classmates I wanted to be a scientist.

But when I started on my degree, I found research hard and quite frustrating at times. Here I was working with things too small to be seen – how was I going to understand what was happening in the test tube? In time, I got hooked and started appreciating the discoveries of scientists before me. I began applying that knowledge to the scientific problems I was working on. Jens Skou the Nobel Prize in Chemistry in 1997. Paul Boyer was then a faculty member at UCLA, where he still works. I really liked the poster and decided to write to the Royal Swedish Academy of Sciences to try my luck at getting a copy of it. Much to my surprise, a month later, it arrived in the mail. I was like: *Wow! Maybe it's a sign for me* to go to graduate school.

Tell us about the autographs on

the poster. The day before I filed my PhD dissertation, Paul Boyer agreed to meet me and, of course, I asked him to sign it. At UCLA, be able to cultivate my students' curiosity and grit, and show them that science can be really cool.

Some students find studying a chore. What would you say to

them? Strive to learn rather than get good grades. This will make studying more enjoyable. Grades should be a by-product of good learning.

You love reading textbooks.

Why? For the love of knowledge! Every textbook contains a compilation of fundamental knowledge accumulated over the years, and each one is based



You grew up in Jakarta. What brought you to Singapore? I pursued college and my

postdoctoral research in the United States. I came back to the region to be closer to my family in Indonesia, and also because I'd heard so much about Singapore's investments in research and technology and its world-class infrastructure. It really is amazing doing research here at NTU.

As one of the two winners of this year's L'Oréal Singapore for Women in Science National Fellowship, you're now a poster girl for science and innovation. It seems a poster also changed your life. What's that about? As an undergrad at UCLA (University of California, Los Angeles), I saw a poster describing research on the

enzyme, ATPase, that won

Paul Boyer, John Walker and

he worked in the building opposite where I did my lab experiments. Eight and a half years later, John Walker gave a talk at NTU and he generously signed it as well. So now I have signatures from two of the three laureates on the poster. Later on, I found out that our NTU President, Prof Bertil Andersson, was the Chairman of the Nobel Committee for Chemistry in 1997!

So, does a life in academia live up to your expectations?

As a professor, I'm a scientist, teacher, writer, business manager, motivator and mentor all rolled into one. My postdoc supervisor once told me: *This job is never boring!* She's right!

I never expected to mentor so many undergraduate students, including research scholars, at the School of Chemical & Biomedical Engineering, where I teach. I am thrilled to on years of validated research. The textbook that I refer to most is *Biochemistry* by Voet and Voet, because it includes both the fundamentals and applications of concepts. I use it as a reference for my course as well as my research work.

Most adventurous thing you

have done? I hiked to the summit of Mount Whitney in California, the tallest mountain in the continental United States. It was really tough for me, and I felt like quitting halfway, but pressed on. We spent 26 hours hiking, which included getting lost for three hours when we were coming down the mountain. The path we found ourselves on looked welltravelled, so we took a nap there, and sure enough, someone woke us up and pointed us the way back to the trailhead. So, never give up! There is always a way to your destination.