

Campus

UCSI students reach new frontiers

UCSI University's Star Trek students headlined the varsity's 31st convocation ceremony by sharing their experiences on how their UCSI education prepared them for cutting-edge science at the world's best research hubs.

Representing the Class of 2018 as the Chancellors Gold Medal Award recipient and valedictorian, respectively, Cherish Chong Chiu Wern and Gary Poh Kwor Xiang took turns to address the capacity crowds over a two-day ceremony that saw 2,445 graduates receiving their scrolls.

Taking turns on stage, their speeches were a fitting recap of their shared experiences at UCSI. And while many nodded in affirmation to Chong's speech, the loudest cheers went Poh's way for his self-deprecating humour and honesty.

"If you told me six years ago that I'd be standing on this stage as valedictorian, I wouldn't believe you," said Poh, a self-confessed late bloomer.

"My grades were just average or worse and I barely made it to Form Six. Back in secondary school, you wouldn't think much of me.."

Poh's turnaround in life started in Form Six when his Chemistry teacher, Wong Phaik Har, mentored him and pushed him to do better. He did and this earned him a scholarship at UCSI where he read chemical engineering. "At



Cherish (middle) shows her gold medal to her mother Low Siok Yen (seated, left), father Chong Yoon Choi (seated, right) while her brother Chester and sister-in-law Rosabelle Kang lean over for a better look.

UCSI, I had many lecturers who motivated me constantly," he added.

"I took my interest in science to the next level and I upsized my ambitions by trying my hand at UCSI's Star Trek programme. I wanted to be selected by Imperial College London for research and I will never forget my excitement when I earned the golden ticket."

At Imperial, Poh contributed to a pertinent nanorobotics research project by working on silicon nanoparticles. Manipulating various conditions like temperature, chemical additives and stirring rate, Poh sought to fit more nanoparticles on

a fixed surface area.

Doing so was crucial as this would improve the drug loads nanorobots could carry, enhancing their delivery of precision medicine as they targeted specific cells in the body, leaving healthy cells unharmed. This, said Poh, would be a game-changing innovation in cancer treatment and chemotherapy could, one day, be a thing of the past.

Not stopping there, Poh also worked to reduce process times and increase production yield in the pharmaceutical industry through heterogeneous protein crystallisation research.

In his element, Poh provided another decibel-raising ovation when he thanked his girlfriend, Tan Yee Huan, for being an ever-present source of inspiration.

Of course, he also thanked his family, UCSI, his lecturers and his friends for contributing to his incredible reversal in fortunes.

Selected by Harvard University for a year-long intercalated research programme in 2014, Chong made a breakthrough in endocrinology when her research showed that mineralocorticoid receptors in the adrenal glands regulate both aldosterone and corticosterone hormones.

Her findings were pertinent as aldosterone regulates blood pressure through sodium conservation, while corticosterone regulates energy, immune reactions and stress responses. They also refined conventional understanding of adrenal gland functions and their impact on hormonal regulation.

"My years at UCSI taught me the virtue of discipline and how important it was to step outside my comfort zone in order to achieve," said Chong, who is also a Public Services Department (JPA) scholar.

"Looking back, UCSI got me ready, not only for a life-changing year at Harvard, but to contribute to endocrine research. I'll never forget how UCSI went out of its way to prepare me for this invaluable opportunity through extra lab

classes and advice," she said.

Providing insights on life at Harvard, Chong admitted that her first five months were testing. Everything was tough, positive results were hard to come by and she even let a lab rat escape with its chest half open due to a lack of anaesthesia.

"After the rat pulled a fast one on me, I began asking: Am I good enough?" she asked. "But thanks to my grounding at UCSI, I knuckled down and accepted that my learning curve at Harvard was not something to be rushed.

Chong even anaesthetised better and she would go on to conduct successful tests on more lab rats en route to arriving at her research findings.

Her work was commended by her research supervisors and she was the principal author of a paper that was published in the *Journal of Endocrinology* – the top basic science journal dedicated to the discipline.

The impact of Chong's contributions made the arrangement an annual affair and six more students have been chosen by Harvard.

More importantly, her pioneering experience formalised UCSI's Star Trek programme – an initiative that sees the world's best universities selecting UCSI students for various research programmes each year.