



Associate Professor Alfred Kow, assistant dean of education of medicine at NUS, received an Outstanding Educator Award at the NUS University Awards on Thursday. He was one of eight individuals recognised for contributions to the university and society through education, research and service. ST PHOTO: ARIFFIN JAMAR

Creator of VR game among NUS academics lauded for innovations

When Covid-19 hit Singapore's shores in early 2020, medical students could not go to the operating theatre for eight months due to the risk of viral infection.

But in May that year, some of them got to immerse themselves in a virtual operating theatre to learn about patient safety.

This was thanks to a virtual reality (VR) game, *PAtient Safety aS Inter-Professional Training (Pass-It)*, created by Associate Professor Alfred Kow, assistant dean of education of medicine at the National University of Singapore (NUS).

While medical students are now able to return to the operating the-

atre, the game is now a compulsory part of the training for all NUS medicine students.

Prof Kow was one of eight individuals recognised for their contributions to NUS and society through education, research and service, at the annual NUS University Awards, held at Regent Singapore on Thursday night.

Prof Kow, who received an Outstanding Educator Award, said that while clinical attachment was a critical component of medical training, students' exposure was limited to what they learnt from the doctor they shadowed.

"Supplementing this traditional

form of learning, the VR game unifies what every student learns. And they learn key things which are not taught in textbooks, in a practical way they will remember."

Assistant Professor Shao Huilin's ground-breaking work during the pandemic also earned her a Young Researcher Award.

In 2020, the NUS bioengineering researcher modified an infectious diseases test kit developed in 2018 to detect in 30 minutes the virus that causes Covid-19. She said this was inspired by the "gold standard" of polymerase chain reaction (PCR) tests which, despite their high accuracy, had shortcomings such as a long processing time and demanding requirements in manpower, equipment, reagents and temperature changes.

"The size of the pandemic, the huge number of people who needed to be tested per day, was putting a lot of pressure on PCR testing," she said. "I wanted to innovate and come up with an alternative, so we don't need to rely on conventional methods of testing."

The test kit, *enVision*, can be used at room temperature, detects the virus much faster than PCR tests, and is just as accurate, she said. It uses a new method she developed, called the molecular switch, to directly identify nucleic acid, without the need for replicating it, as with PCR tests. The versatile technique can be modified to diagnose all infectious diseases, including Zika, dengue, and hand, foot and mouth disease, she said.

The top awards for outstanding service were given to Madam Kay Kuok, executive chairman of real estate development firm Allgreen Properties and director of Shangri-La Hotel Singapore, and Ms Janet Ang, chairman of the Institute of Systems Science (ISS) management board at NUS.

Madam Kuok was the founding chairman of the Yale-NUS College governing board in 2011. Ms Ang, who was appointed chairman of ISS in 2016, doubled the size of NUS-ISS business operations and set up many industry partnerships.

Shermaine Ang