

# Virtual reality to help in teaching of NUS medical, nursing students

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**SINGAPORE** – The National University of Singapore (NUS) is looking to tap Virtual Reality Simulation (VRS) technology for the teaching of its medical and nursing students, beginning with the development of a 3-D human “cadaver”, which will allow students to practise dissection on a hologram for their human anatomy classes.

It is also developing a Virtual Interactive Simulation Environment, which will provide a 3-D virtual environment platform for life-like scenarios, such as a mass casualty incident, a hospital emergency room or an operating theatre, to train students.

These programmes were announced yesterday at the official opening of the Tahir Foundation Building, a 17-storey facility which houses a mix of research laboratories, teaching and learning spaces, as well as student activity areas. Part of the building is shared with the Saw Swee Hock School of Public Health as well as the Pharmacy and Chemistry programmes of the



Dr Tahir (left) and Mr Heng touring the labs at the new Tahir Foundation Building. The donation made by Dr Tahir will support the advancement of medical education and research of the school. PHOTO: TRISTAN LOH

NUS Faculty of Science.

The building is named after prominent Indonesian business leader and philanthropist Tahir, who donated S\$30 million to the school in 2012. The donation made by Dr Tahir will support the advancement of medical education and research of the school and include projects such as the VRS.

Associate Professor Suresh Pillai of the Yong Loo Lin School of Medicine's Centre for Healthcare Simulation said using virtual interactive technology to teach anatomy is more interactive and would complement traditional training using actual cadavers. A pilot will start in 2017 with first- and second-year students, and is expected to be introduced to the curriculum one year later.

“It gives a lot more leeway for the tutors to go back and forth because in a cadaver, once you dissect a certain area, it's gone and you have to go another area within the body. With 3-D, they can toggle to and fro,” he added.

NUS President Tan Chorh Chuan added that “training our students on virtual reality systems will ultimately help to improve the quality of clinic care and patient safety”. The donation from Dr Tahir will also go towards funding the Global Health and Leadership (GoHelp) Initiative rolled out to the school in January.

The three-year structured programme includes student courses and workshops, identification and training of a pool of mentors to supervise student-led community projects and collaboration with partners. For example, when students join in Year One, they are mainly participants in the community improvement projects (CIP) and learn how to lead these CIPs through formal teaching during the workshops.

“The goal is to equip our students with the skills and knowledge needed to run effective CIP — for example, mass health screening and clinical intervention programmes both in Singapore as well as overseas,” said Prof Tan.

The school's curriculum will also be extended with the donation. For instance, by 2020, the school aims to base the majority of the teaching sessions on actual cases and become more interactive, with greater emphasis on Inter-Professional Education — training together with nurses and other allied health professionals.

Scholarships and bursaries to support needy students will also be provided with the donation.

Speaking at the building's launch yesterday, Education Minister Heng Swee Keat said contributions from alumni and friends are important to complement the Government's efforts in areas such as improving education or medical care.