

New NTU research centre to study how dementia develops in Asians

It will explore new strategies to predict and delay the progression of the syndrome

Joyce Teo
Senior Health Correspondent

The Lee Kong Chian School of Medicine at Nanyang Technological University (NTU) has launched a centre to study the changes in the brains of Asians before dementia sets in as well as find new strategies that can one day predict and delay the progression of the syndrome.

It is thus targeting people with suspected cognitive decline as well as mild cognitive impairment (MCI).

Singapore's director of medical services Kenneth Mak, the guest of honour at the launch of the Dementia Research Centre (Singapore), or DRCS, said that the centre aims to develop and validate novel biomarkers and new interventions for dementia in Asians. In Singapore, one in 10 people aged 60 and above lives with the condition.

Associate Professor Mak also said the Ministry of Health adopts a multipronged approach to de-

mentia care, which includes raising awareness, enhancing care capacity and capability in the community and hospitals, and supporting caregivers of people living with it.

NTU president Subra Suresh said DRCS will offer new avenues for developing a better understanding of neurodegenerative diseases.

Associate Professor Nagandran Kandiah, director of DRCS, said: "The challenge with treating dementia is that if it is not picked up early, you miss the boat. Once you lose brain cells, there is nothing we can do to reverse that."

Crucially, the centre aims to shed light on "Asian dementia" because of the biological factors unique to the Asian brain that increase the prevalence of dementia.

For instance, Asian patients are three times more likely than Caucasians to suffer from cerebral small vessel disease, which is a narrowing of the small blood vessels in the brain that then appear as white matter lesions. They can put one at increased risk of dementia and more rapid cognitive decline.

Prof Kandiah also said that the



Clinical research coordinator Koh Chen Ling, 25, extracting blood from homemaker Cecilia Chew Seit Yin, 64, a participant of the dementia study at Dementia Research Centre (Singapore).
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prevalence of the APOE4 gene and the amyloid-beta gene, which are associated with Alzheimer's disease, is much lower in Asian patients, though in many interna-

tional trials, the APOE4 gene is an inclusion criterion.

Research done by the DRCS has shown that in Asians, small vessel disease results in more brain

shrinkage among those who do not have the APOE4 gene, which shows that novel strategies may be needed to manage Asian patients with dementia, he said.



Furthermore, one in three Asian patients has the tau protein in his brain, known to be a risk factor for dementia, but no evidence of any amyloid-beta protein.

Prof Kandiah, who was previously with the National Neuroscience Institute, said the dementia research centre has already recruited 67 out of 1,500 patients targeted for a five-year study.

One of them is his patient, Ms Lena Wong, who is nearing 70 and keen to contribute to the efforts to delay the onset of dementia in people like her, who have mild cognitive impairment.

Her forgetfulness became obvious to her more than a decade ago. A few years ago, it reached a point when she would go shopping, pay and then leave without groceries.

At the research centre, participants will go through a cognitive assessment that will include state-of-the-art blood tests to find brain proteins, specifically amyloid and tau, as well as a brain scan to look for brain shrinkage and the presence of white matter lesions. They will receive a free report eight weeks after their visit, which they can use for a discussion with their doctors.

joyceteo@sph.com.sg