

## MEDIA RELEASE

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### **NUH CONTRIBUTES TO LANDMARK STUDY ON NEW DRUG TO SLOW PROGRESSION OF ALZHEIMER'S DISEASE**

#### ***Lecanemab shown to slow cognitive decline in study involving 1,795 participants at early stage of Alzheimer's disease***

SINGAPORE — A major clinical trial of an antibody treatment may soon pave the way for improved treatment of Alzheimer's disease, which affects memory, thinking, behaviour and emotion.

The multicentre trial, which involved National University Hospital (NUH) as the only study site in South-east Asia, showed that the drug lecanemab slowed cognitive and functional decline in patients aged 50 to 90 with early Alzheimer's disease.

Alzheimer's disease is the most common cause of dementia, which affects one in 10 persons above 60 in Singapore.

A number of medications may be prescribed for Alzheimer's disease to help temporarily improve some symptoms such as forgetfulness or behavioural and psychiatric symptoms, but none could as yet alter the underlying disease course.

Lecanemab, a monoclonal antibody that interferes with the formation of amyloid plaques that are a hallmark of Alzheimer's disease, showed promise in slowing the progression of the disease.

Researchers leading the phase 3, double-blind trial, named Clarity AD, presented their results at the 15<sup>th</sup> Clinical Trials On Alzheimer's Disease conference in San Francisco on 29 November 2022. The findings were also published in *The New England Journal of Medicine* that same day.

In the study, a total of 1,795 patients were randomly assigned to an intravenous infusion of either lecanemab or a placebo every two weeks for 18 months. Among them were 13 patients from NUH's Memory Clinic who met stringent eligibility criteria, including that of having amyloid detected in the brain through positron emission tomography (PET) scans.

Each participant also had to have a study partner, or someone who was able to support him or her for the duration of the study and who spent at least eight hours per week with the participant.

The study participants were assessed using several scales, primarily the Clinical Dementia Rating-Sum of Boxes (CDR-SB), a rating scale for tracking the progression of cognitive and functional impairment in Alzheimer's disease.

Researchers assessed participants' cognitive and functional performance in six areas – memory, orientation, judgement and problem solving, community affairs, home and hobbies, and personal care – after interviewing participants and their study partners. The total score of the six areas is the score of CDR-SB, with a higher score representing greater cognitive and functional impairment.

The researchers reported that the mean change from participants' baseline CDR-SB score (approximately 3.2, consistent with early Alzheimer's) at 18 months was 1.21 for the lecanemab group and 1.66 for the placebo group, meaning that the placebo group had a greater decline in their cognitive function at the end of the study period.

A sub-study of 698 participants also showed greater reductions in brain amyloid in the lecanemab group than in the placebo group.

Associate Professor Christopher Chen, a Visiting Consultant in the Department of Psychological Medicine at NUH and one of the authors of the Clarity AD paper, said the study results give a boost to Alzheimer's treatment and help refute the widespread belief that there is no effective disease-modifying treatment for patients.

Prof Chen, who is also Director of the Memory, Ageing and Cognition Centre at the National University Health System and Associate Professor in the Department of Pharmacology, National University of Singapore Yong Loo Lin School of Medicine, said: "Imagine if you could only prescribe symptomatic treatments like painkillers for cancer patients, would this be considered satisfactory these days?"

"What we want to do for Alzheimer's patients is to slow or even halt the progression of their disease, so that it is possible for them to enjoy a good quality of life whilst living with Alzheimer's for many years."

He said that early intervention may be beneficial as it takes several years for Alzheimer's disease to progress from mild to moderate to severe, by which time patients would have difficulty performing activities of daily living, such as feeding and dressing themselves.

Lecanemab is pending approval from the United States Food and Drug Administration in January 2023, with decision in the United Kingdom and Europe to follow.

### Chinese Glossary

National University Hospital (NUH)	新加坡国立大学医院 (国大医院)
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### **About the National University Hospital**

The National University Hospital (NUH) is the first university hospital in Singapore, and a major tertiary and referral institution. While NUH opened its doors on 24 June 1985, its legacy goes back to the founding of what is today the NUS Yong Loo Lin School of Medicine in 1905. It is the principal teaching hospital of the medical school and the NUS Faculty of Dentistry.

An Academic Medical Centre under Singapore's National University Health System, NUH provides affordable specialist care for patients, training for healthcare professionals, and undertakes translational bench-to-bedside research to improve care.

It is the only public and not-for-profit hospital in Singapore to offer a comprehensive suite of specialist care for adults, women and children, as well as paediatric kidney and liver transplant programme.

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