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Singapore develops new AI-powered tool for early dementia screening

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Uses neuroscientific games to identify early signs of cognitive impairment in just 15 minutes



Nanyang Technological University, Singapore (NTU Singapore) spin-off company Gray Matter Solutions is partnering with Osler Group, a premium health and wellness organisation in Singapore, to offer a new screening tool that detects mild cognitive impairment (MCI) – the early stage before dementia – efficiently and affordably using Artificial Intelligence (AI).

This new AI-powered screening tool, named ReCOGnAIze which was developed at NTU's Lee Kong Chian School of Medicine (LKCMedicine), uses neuroscientific games to identify early signs of cognitive impairment in just 15 minutes.

The AI-powered tool comprises four specially designed games covering clinically relevant cognitive and behavioural domains, developed from over 125,000 hours of research at LKCMedicine's Dementia Research Centre (Singapore).

Earlier clinical trials demonstrated that ReCOGnAIze can achieve nearly 90 per cent accuracy in detecting MCI. ReCOGnAIze was developed by Associate Professor Nagaendran Kandiah, Director of the Dementia Research Centre (Singapore), and his team at LKCMedicine, after three years of research and development.

The technology is now licensed to Gray Matter Solutions, which Assoc Prof Kandiah co-founded with his researcher and NTU alumnus Mohammed Adnan Azam. In a new partnership with Osler Group, the tablet-based games will be on free trial for the next three months for patients at Osler Health clinics, as part of their holistic health assessment.

Moving forward, Gray Matter Solutions will also seek to expand its range of products and services, such as catering to mass public screenings at community events and to partner health organisations in Singapore and overseas.