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Hong Kong introduces cutting-edge technology to revolutionise brain health

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Launch of Humansa BrainSpark Programme emboding as a proactive approach to brain health

Humansa, Asia's leading health and longevity center, has announced the launch of its ground-breaking BrainSpark Programme, a brain health programme in collaboration with i-Cognitio Sciences, a spin-off company from the Chinese University of Hong Kong (CUHK) founded by Prof. Vincent Mok.

This revolutionary programme incorporates the world's first artificial intelligence (AI) model capable of detecting risk of Alzheimer's disease using fundus photographs alone, offering a non-invasive and accessible solution to address the growing global challenge of cognitive decline and dementia.

The Humansa BrainSpark Programme is a timely response to the alarming statistics in developed Asia-Pacific regions, where the mean life expectancy has reached 85 years. Yet, 1 in 3 individuals aged 85 or above may suffer from dementia, a devastating disease that robs individuals of their independence and quality of life. Research shows that 45% of dementia cases can be prevented or delayed by optimising modifiable risk factors, making early detection and personalised interventions critical.

Powered by state-of-the-art AI retinal imaging technology (i-Cog Brain Health) led and developed by Prof. Vincent Mok's team, the program evaluates brain health and identifies early signals of Alzheimer's disease. The AI model, developed and validated using nearly 13,000 fundus photographs from 648 Alzheimer's patients and 3,240 cognitively normal subjects, demonstrated accuracies ranging from 80% to 92% among various datasets of multi-ethnicities and multi-countries. The study was led by CUHK in collaboration with Universities in Singapore (National University of Singapore, Duke-National University, Nanyang Technological University), China (Tsinghua University), US (Mayo Clinic) and UK (Queen's University Belfast).