

WORLD › NEWS

▼ advertisement

QlikView BI Dashboard

No More Waiting for Static Reports. Spot Trends & Insights in Seconds!



NTU Scientists Discover New Treatment For Dementia

SINGAPORE, April 6 (Bernama) -- Pushing new frontiers in dementia research, Nanyang Technological University, Singapore (NTU Singapore) scientists have found a new way to treat dementia by sending electrical impulses to specific areas of the brain to enhance the growth of new brain cells.

Known as deep brain stimulation, it is a therapeutic procedure that is already used in some parts of the world to treat various neurological conditions such as tremors or Dystonia, which is characterised by involuntary muscle contractions and spasms.

Assistant Professor Ajai Vyas from NTU's School of Biological Sciences said that the findings from the research clearly showed the potential of enhancing the growth of brain cells using deep brain stimulation.

"Around 60 per cent of patients do not respond to regular anti-depressant treatments and our research opens new doors for more effective treatment options," he said in a statement released by NTU today.

NTU scientists have discovered that deep brain stimulation could also be used to enhance the growth of brain cells which mitigates the harmful effects of dementia-related conditions and improves short and long-term memory.

Their research has shown that new brain cells, or neurons, can be formed by stimulating the front part of the brain which is involved in memory retention using minute amounts of electricity.

The increase in brain cells reduces anxiety and depression, and promotes improved learning, and boosts overall memory formation and retention.

The research findings open new opportunities for developing novel treatment solutions for patients suffering from memory loss due to dementia-related conditions such as Alzheimer's and even Parkinson's disease.

This discovery was published in eLife, a peer-reviewed open-access scientific journal published by the Howard Hughes Medical Institute, the Max Planck Society and the Wellcome Trust.

Dr Lee Wei Lim, an associate professor at Sunway University, Malaysia, who worked on the research project while he was a Lee Kuan Yew Research Fellow at NTU, said that deep brain stimulation brings multiple benefits.

"No negative effects have been reported in such prefrontal cortex stimulation in humans and studies have shown that stimulation also produces anti-depression effects and reduces anxiety.

"Memory loss in older people is not only a serious and widespread problem, but signifies a key symptom of dementia. At least one in 10 people aged 60 and above in Singapore suffer from dementia and this breakthrough could pave the way towards improved treatments for patients," he said.

For decades, scientists have been finding ways to generate brain cells to boost memory and learning, but more importantly, to also treat brain trauma and injury, and age-related diseases such as dementia.