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Singapore: A team of scientists at the Gladstone Institutes, San Francisco, have reprogrammed skin cells to convert into brain cells, a research that could lead to new breakthrough in the treatment of Alzheimer's disease. Currently, there are no approved drug treatments to prevent or reverse the disease.

The researchers transferred a gene called Sox2 into both mouse and human skin cells, following which the skin cells transformed into early-stage brain stem cells, called induced neural stem cells. These cells began to self-renew and soon matured into neurons capable of transmitting electrical signals. The new neurons developed into neural networks within a month. The study has been published online on June 7th in the journal *Cell Stem Cell.*

Dr Yadong Huang, Gladstone investigator and associate professor of neurology at the University of California, San Francisco, said that, "Many drug candidates, especially those developed for neurodegenerative diseases, fail in clinical trials because current models don't accurately predict the drug's effects on the human brain. Human neurons, which are derived from reengineered skin cells, could help assess the efficacy and safety of these drugs, thereby reducing risks and resources associated with human trials."