

TauRx Therapeutics

TauRx Therapeutics Ltd was established in Singapore in 2002 with the aim of developing new treatments and diagnostics for a range of neurodegenerative diseases based on its technology platform. It was founded by the late Dr K M Seng, a visionary venture capitalist from Singapore, and Professor Claude Wischik, whose team developed the platform technology and who is the company's Executive Chairman. The Company has an operating staff of 65 based in Aberdeen, Singapore, Berlin and Warsaw.

The company has focused on developing a first-in-class treatment for Alzheimer's disease, based on targeting the tangles originally discovered by Dr Alois Alzheimer in 1907. In 1988, the Wischik team discovered that tangles are made up of abnormal fibres of tau protein forming inside nerve cells. They showed that the aggregation of tau protein is highly correlated with dementia. Amyloid plaques - the second lesion found in the brains of Alzheimer's patients which have been the focus of other research approaches - are more a feature of normal ageing and are poorly correlated with dementia.

TauRx has identified drugs which have the ability to dissolve the tau fibres of the tangle and which also work in a range of laboratory test systems pioneered by the company. TauRx's first-in-class Tau Aggregation Inhibitor rember™ is the only disease-modifying drug at clinical trial stage which works on the tau aggregation pathway. rember™ is a novel form of a chemical with a long history of use in the treatment of other conditions which TauRx has patented for medical use in the treatment and prevention of Alzheimer's disease. rember™ works by dissolving the tau aggregates and preventing the aggregation process.

The tau tangles first destroy nerve cells critical for memory and then destroy neurons in other parts of the brain as the disease progresses. The tangles begin to destroy memory-critical nerve cells in people in their fifties and upwards. TauRx believes that its pipeline drug discovery capability can be used to develop second and third generation treatments which could be widely used to prevent tangles long before patients experience the first symptoms of Alzheimer's.

World Health Organisation figures indicate that there will be more than one billion people aged 65 and over by 2050, of whom TauRx calculates that about half will have tau tangles in their brains. This makes it particularly important to develop new treatments to halt and prevent tangles forming and spreading throughout the brain. In 2006, 26.6 million people were living with Alzheimer's disease worldwide. According to the American Alzheimer's Association, this number is set to exceed 100 million by 2050, at which time one in 85 people will be living with the disease, due to rapidly ageing populations and longer life expectancy.

In addition to its Phase 2 clinical trial of rember™, TauRx is also planning a trial in Parkinson's as rember™ also has activity on the synuclein fibres which accumulate in the brains of these patients in the form of Lewy bodies. TauRx is also developing substances which it hopes to test in brain scans to measure the build up of tangles so they can be diagnosed early and treatment can be started before they cause permanent damage.

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