

MARIJUANA COULD HOLD THE KEY TO TREATING ALZHEIMER'S BUT DRUG LAWS STAND IN THE WAY, SAY SCIENTISTS

KATIE FORSTER

Chemicals found in cannabis could be used to help treat dementia, early studies have shown – but further research into the findings is being stymied by restrictive drug laws, scientists say.

Cannabinoids like tetrahydrocannabinol (THC) can aid the removal of dangerous dementia proteins from brain cells, according to researchers at the Salk Institute, a renowned biomedical research facility in California.

While initial findings published last year raise hopes cannabis compounds could one day form the basis of a new medicine to help treat Alzheimer's disease, the next steps are proving slow.

Professor David Schubert, who led the study, told CNBC legal issues were a “major roadblock” preventing him and his team from conducting further research into the medicinal properties of marijuana.

“It's so blatantly obvious that this plant should be studied in greater detail,” he said. “It's hard enough to get funding without having to worry about legal issues on top of it.”

Professor Schubert said the institute had submitted an application to the US Drug Enforcement Agency for permission to use cannabis extracts for tests on mice in December, but had not yet received a response.

The researchers used a small amount of synthetically-produced cannabinoids in the first study, which was found to stimulate the removal of a toxic plaque associated with dementia in the brain.

Dementia, which mainly affects older people, causes a deterioration in memory, thinking and behaviour and can impede someone's ability to perform everyday activities.

It affects around 47.5 million people worldwide, according to the World Health Organisation, and it recently overtook heart disease to become the leading cause of death in England and Wales. The most common type of dementia is Alzheimer's disease.

A protein called amyloid beta creates a harmful plaque in the brains of people with dementia that can destroy nerve cells.

Research is ongoing into the role amyloid beta plays in the disease, but scientists believe the protein begins to accumulate in brain cells well before Alzheimer's symptoms manifest themselves.

The team at the Salk Institute showed that THC reduced the amount of amyloid beta in nerve cells with high levels of the protein, allowing the cells to survive.

The US Alzheimer's Association have said marijuana is a legitimate area of research into possible treatment for the disease, but some experts have been sceptical, reported CNN.

"It is difficult to say what, if any, effect this might have in humans, even if it would successfully promote clearance of [amyloid beta plaque]," Donovan Maust, an assistant professor of psychiatry at the University of Michigan, said.

There are currently three nobel laureates on the Salk Institute's faculty, and among the scientists who have trained or worked there, 11 have won nobel prizes overall.

It is based in La Jolla, near San Diego in California, where marijuana was made legal in November.

However, as it receives funds from the US government, the institute is prohibited from using cannabis in experiments without authorisation. Applications can take six months to approve.

The Alzheimer's Society acknowledged the results of the early research on its website, but warned "there is no evidence that cannabis can help to prevent the underlying causes of the disease in people".

It also said heavy use of the drug has been linked to memory and cognitive problems.