

Genetic technique reverses Alzheimer's processes in mice

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Researchers in the US have used genetic techniques to slow the progression of Alzheimer's in mice that show features of the disease. The study, which centered around a protein called BACE1, was reported today in the *Journal of Experimental Medicine*.

In humans, BACE 1 is involved in the production of a hallmark Alzheimer's protein called amyloid and is seen as a potential target for future treatments.

The researchers in this study worked with mice that develop signs of Alzheimer's and bred them to stop producing BACE1 once they reached adulthood. The mice that stopped producing BACE1 showed signs of reduced amyloid build-up, better brain functioning and improvements in thinking skills.

Dr. Sara Imarisio, Head of Research at Alzheimer's Research UK, said, "Developing drugs that tackle Alzheimer's disease by targeting the BACE 1 protein is an active area of research. This new study adds to findings that suggest this approach is a promising avenue for future therapies, but drugs that target this protein are yet to show any benefit to people with Alzheimer's in clinical trials.

"The effects that the researchers saw came from genetically modified mice, to develop a useful treatment in the fight against Alzheimer's researchers will need to recreate these effects using drugs that are safe and effective in people.

"Just this week we have heard that a drug targeting this [protein](#) has been withdrawn from a final-stage trial. While news of any trial failing is disappointing, other BACE1 drugs are currently making their way through testing. It is crucial that we continue to invest in research so that we can deliver on the promise of research like this and transform the lives of people with dementia."

Provided by Alzheimer's Research UK

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