Liver protein causes Alzheimer's changes in mice



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Researchers in Australia investigating a protein associated with Alzheimer's disease, amyloid, have released findings that suggest mice with amyloid produced in the liver can have brain changes associated with disease. The academic journal, PLOS have published the findings today (Tuesday 14 September).

They developed a mouse that produces the hallmark Alzheimer's protein amyloid but only in liver cells.

They demonstrated this protein could travel in the blood.

The mice with this amyloid had brain nerve cell loss and performed worse on memory and thinking tasks.

Dr Susan Kohlhaas, Director of Research at Alzheimer's Research UK, said:

"The brain doesn't operate in isolation from the rest of the body and there is growing evidence to suggest that other organs can have important effects on our brain health. In this well-conducted early-stage experiment in mice, researchers demonstrated that amyloid produced only in liver cells can lead to Alzheimer's-like processes in mice. "There are good reasons to think that the amyloid protein that builds up in the brains of people with Alzheimer's is produced by brain cells, but over the years researchers have suggested that other sources of amyloid may play a role in the disease. "If liver cells were found to produce amyloid that contributes to Alzheimer's in people, this may open new avenues for lifestyle changes and drugs to limit amyloid production, but we will need to see much more evidence before we can know whether these approaches would be worth pursuing. "As with any research carried out in mice, we will need to explore how

relevant these findings are to Alzheimer's disease in people. Continued investment into research is the only way to follow up on findings like these and investigate how we can best overcome diseases that cause dementia."

Read synthesis of human amyloid restricted to liver results in an Alzheimer-like neurodegenerative phenotype

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