New approach identified for treating Alzheimer’s disease, study suggests

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molecule known as P8 could stop the build-up of a toxic protein in the brain which leads to Alzheimer's disease, according to new research from the University of California San Diego published in PLOS One. Using mice engineered to develop the disease, researchers have developed and tested the novel compound, which reduces the production of beta-amyloid, one of the key proteins thought to cause the condition.

In Alzheimer's disease a natural protein in the brain called APP is cut up by enzymes to make beta-amyloid, forming plaques which cause the death of brain cells. The researchers developed 10 small proteins that bind to APP and found that four of them were able to stop the enzymes from cutting it to form beta-amyloid. Of these four proteins, P8 had the strongest effect. By infusing P8 directly into the brains of mice for two weeks, the researchers were able to significantly reduce the amount of beta-amyloid that was produced.

Dr James Pickett, Head of Research at Alzheimer's Society said:

'Many studies in Alzheimer's disease are trying to stop the build-up of protein clumps in the brain, and this interesting research has found a novel way to do it. This new compound could have fewer side effects than other drugs currently being tested, but there are many more steps required before it could move from animal studies into human trials. We still need to test whether enough of the drug can get into the brain to work properly and also whether its effects on the physiology of the brain actually translate into improvements in thinking and memory.'

'It's hugely positive to see the large volume of new research findings emerging at the moment - it shows we're starting to make good progress in our understanding of Alzheimer's disease and other dementias. Alzheimer's Society is raising money for research like this because the more studies that can be funded, the quicker we are likely to make progress towards a cure.'

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