

# 'Statin for brain' may stop Alzheimer's in its tracks

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The middle-aged could be routinely prescribed pills to ward off dementia after a pilot study suggested that a cancer drug could halt the first stages of the disease.

Scientists claim to have identified the first "neurostatin", a treatment that could be taken in daily small doses to reduce their risk of Alzheimer's in the same way that statins cut the odds of developing heart problems.

With the brain disease forecast to affect a million people in the UK by 2025, researchers are increasingly turning to drugs that could stop it or slow it down in its early stages.

The international team of neuroscientists, led by the University of Cambridge, said they had taken a stride towards developing a medicine that would help to prevent distinctive clumps of protein from forming in the brain.

They found that bexarotene, a drug that has already been approved for treating lymphoma, blocked the physi-

cal signs of Alzheimer's from forming in roundworms that had been genetically engineered to develop the condition.

History suggests that these preliminary results should be interpreted with caution. Studies suggesting that bexarotene could clear the tangles of amyloid-beta protein that are linked to Alzheimer's prompted great excitement three years ago, but the results in human patients were poor.

This time, however, the scientists said that the drug could be much more effective at preventing the brain damage rather than curing it once it has already formed.

Bexarotene, also known as targetin, is expensive, but the researchers argued that it would be possible to develop cheaper and more powerful pills with a similar effect.

Michele Vendruscolo, professor of chemistry at Cambridge, said the same strategy could yield a drug that could reverse Alzheimer's once it has become established in the brain. "This in terms of an approach for Alzheimer's disease

would be the equivalent of what statins do for heart conditions," he said at the annual conference of the American Association for the Advancement of Science in Washington.

"We are going to put together a pool of compounds that work in this way, and simultaneously we are putting together another pool of compounds that act on the proliferation step. Whereas neurostatins would act as a preventative, the second pool of compounds would act as a treatment or cure."

The project is still at a very early stage. Kenneth Langa, professor of internal medicine at the University of Michigan, described it as "the first step in a million-mile journey".

"This research was done in worms and only looked at the first step in the hypothetical disease process that might lead to Alzheimer's," he said. "So this research is very far from identifying a drug that protects against dementia like statins," he said.

The study was published yesterday in the journal *Science Advances*.

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