

New target for fighting Alzheimer's: study

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French researchers said Tuesday they had found a promising new target in the fight against Alzheimer's, the debilitating brain disease that causes irreversible memory loss and dementia.

In laboratory experiments, a team led by Etienne-Emile Beaulieu of the French National Institute of Health and Medical Research (INSERM) uncovered what could prove a critically important interaction between two types of proteins.

The telltale symptoms of Alzheimer's and other <u>neurodegenerative</u> <u>diseases</u> have been linked to an overabundance in the brain of the tau protein.

Beaulieu and colleagues discovered that another protein known as FKBP52, which also helps regulate immune responses, may slow or prevent that damaging accumulation.

"It's an 'anti-tau' weapon located within the cells," Beaulieu said at a press conference in Paris.

"We want to boost the efficiency of this weapon and find pharmaceutical ammunition -- new drugs -- to accelerate its action so that it can destroy unwanted tau," he told journalists.

The study was published this week in the US <u>Proceedings of the National Academy of Sciences</u>.



Developing such a drug may take a long time, he said, "but in two or three years we should be able to find a way to at least make an early diagnosis."

Certain biochemical markers of the illness probably appear 10 or 15 years before clinical symptoms, he added.

Further experiments based on the results reported Tuesday will begin soon with geriatrics patients at the Charles Foix d'Ivry Hospital outside of Paris, he announced.

Beaulieu is best known as the inventor of the RU-486 "abortion pill", first developed in 1980.

Other researchers said the link between the two types of proteins was important, but remained skeptical of an early breakthrough for treatment.

"Everything reported here was done in the laboratory," said Philippe Amouyel, director of France's National Scientific Foundation for Alzheimer's disease.

"This lead must be followed up, but for the moment there is no direct link to Alzheimer's, and no demonstration that it works on patients," he told AFP.

There are hundreds of proteins that interact with tau, and further research is needed to see how the interaction between FKBP52 and tau fit into the larger puzzle of the disease, he added.

Alzheimer's has also been associated with amyloid beta proteins that accumulate around neurons in the <u>brain</u>, forming plaques.



An estimated 37 million people worldwide, including 5.3 million in the United States, live with dementia, with Alzheimer's disease causing the majority of cases, according to the World Health Organization.

As populations age, this figure is projected to increase rapidly over the next 20 years.

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