

# Study in mice suggests molecules in plants have beneficial effect on Alzheimer's disease

May 7 2008

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A set of molecules found in certain plants appears to have a beneficial effect in brain tissue associated with Alzheimer's disease, according to a new study conducted in mice. The study was led by researchers at the University of South Florida and Cedars-Sinai Medical Center. An article in the *Journal of Cellular and Molecular Medicine* is available online.

Terrence Town, Ph.D., one of the senior authors of the study, is available to provide more information about this study. He is a research scientist with the departments of Neurosurgery and Biomedical Sciences at Cedars-Sinai Medical Center, and with the hospital's neurosurgical research center, the Maxine Dunitz Neurosurgical Institute.

Researchers administered molecules called flavonoids, which are found in certain fruits and vegetables, to a mouse model genetically programmed to develop Alzheimer's disease. Using two of these molecules, luteolin and diosmin, they were able to reduce the levels of a protein called amyloid-beta, which forms the sticky deposits that build up in the brains of patients with Alzheimer's. The researchers also determined that these molecules work by targeting a protein called presenilin-1, which has long been linked to Alzheimer's as a genetic cause of this devastating and untreatable illness.

The results may offer a new approach to therapy for patients suffering from this neurodegenerative illness, which is the most common cause of dementia and is estimated to affect more than five million people in the United States.

“These flavonoids are widely available in natural foods and it appears that they may be used in purified form as therapeutic agents. The compounds have few if any side effects and are naturally occurring in citrus fruits. They also can be found as dietary supplements in health food stores,” Town said.

Source: Cedars-Sinai Medical Center

Citation: Study in mice suggests molecules in plants have beneficial effect on Alzheimer's disease (2008, May 7) retrieved 5 May 2024 from <https://medicalxpress.com/news/2008-05-mice-molecules-beneficial-effect-alzheimer.html>

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