Researchers at the University of South Florida have invented a novel therapeutic method for the treatment of Alzheimer’s disease using a compound extracted from the cactus, *Opuntia ficus indica*.

Alzheimer’s disease is a common neurodegenerative disorder and is among one of the top ten leading causes of death in the United States. Alzheimer’s disease is pathologically characterized by the formation of plaques within the brain. These plaques are formed by the aggregation of a protein known as amyloid beta. Therefore, the disruption of the pathway to amyloid beta aggregation could serve as a promising approach to the treatment of Alzheimer’s disease.

Within the plant *Opuntia ficus indica*, a cactus more commonly known as the prickly pear, there is a compound known as mucilage. Mucilage is a pectin polysaccharide that can be extracted and made into gel and non-gel forms. Experimentally, mucilage has been shown to disrupt the pathway leading to amyloid beta aggregation.

Our researchers have demonstrated, using empirical evidence, the ability of prickly pear cactus mucilage to disrupt the aggregation of amyloid beta. This will provide an alternative therapeutic approach in the ongoing fight against Alzheimer’s disease.

**ADVANTAGES:**
- Alternative therapy for Alzheimer’s disease
- Treats underlying pathology
- Few collateral effects

**Novel alternative treatment for Alzheimer’s disease**

![Transition electron microscope image of amyloid aggregates after treatment](image)

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