

Abstract Submitted
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Olive Oil and its Potential Effects on Alzheimer's Disease

SHAN ANTONY, Indiana State Univ, G.P. ZHANG, Indiana State University — Alzheimer's disease is a neuro-degenerative brain disease that is responsible for affecting the lives of hundreds of thousands of people every year. There has been no evidence to suggest a cure for the disease and the only existing treatments have very low rates of success in trial patients. This is largely due to the fact that the brain is one of the most undiscovered parts of the human body. Brain chemistry is highly complex and responds to its environment in random and radical ways. My research includes testing the reactionary outcomes of combining compounds of olive oil with the 20 basic amino acids. Regions around the world with olive oil based diets show a direct correlation to lower rates of Alzheimer's. Testing few compounds of olive oil with chemicals already found in the brain may yield to a better understanding as to why that is. I took the compounds tyrosol, hydroxytyrosol, and oleocanthal, and combined them with the 20 basic amino acids and calculated the total energy of the new molecule. The molecules produced with acceptably low energy values will be the center of further research. These molecules could lead to truly understanding olive oil's effect on the brain, and ultimately, the cure or prevention of Alzheimer's disease.

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