The Effect of Various Diet Consumption on Simulated Alzheimer's Disease Responses

Barnhart, Anna (School: Joplin High School)

Alzheimer's disease kills 1 in 3 senior citizens every year (Alzheimer's Disease Facts and Figures, 2020). This disease has no cure and doctors are unsure of its cause. Many wonder if certain life changes such as diet could help prevent the onset of Alzheimer's disease. One common trait among Alzheimer's disease patients is a higher level in cortisol (Daniilidou, 2021). Linking the rise in cortisol levels to these lifestyle changes, this experiment studied the link between diet and cortisol using fecal sample analysis with a microplate reader. The Novel Object Recognition test was then used to analyze the effect of diet on cognitive memory function. In this experiment, diet was not a key factor in cortisol levels. However, the Novel Object Recognition test results showed that diet could affect other areas such as memory and behavior.

Awards Won: