



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Mason S. Dougherty	Project Number 36691
Project Title The Effects of Various Dietary Supplements on the Longevity of <i>Drosophila melanogaster</i>	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this project is to determine if certain dietary supplements increase the longevity of <i>Drosophila melanogaster</i>.</p> <p>Methods/Materials There were 15 vials containing 10 specimens each of <i>Drosophila melanogaster</i>. Acai extract, fish oil, ginseng herbal extract, and green tea extract were the supplements used. Each supplement was placed in 3 vials along with prepared <i>Drosophila</i> food, as well as 3 vials of <i>Drosophila</i> food as a control. The number of living versus nonliving <i>Drosophila</i> in each vial was recorded daily to determine the average life span per vial.</p> <p>Results Acai extract proved to have the most positive effects on increasing the longevity of the <i>Drosophila melanogaster</i>, as compared to the control and other supplements tested.</p> <p>Conclusions/Discussion My hypothesis proved to be correct in that acai extract had the most positive effects on longevity. However, ginseng extract and green tea extract also showed increased longevity as compared to the control. This experiment showed that some dietary supplements can have positive effects on the longevity of <i>Drosophila melanogaster</i>. This may also suggest similar effects on humans due to the similarities between human genes and <i>Drosophila</i> genes.</p>	
Summary Statement I showed an increase in the longevity of <i>Drosophila melanogaster</i> with acai extract and other dietary supplements.	
Help Received I prepared the <i>Drosophila melanogaster</i> vials and recorded logs daily myself. I got help comparing the average lifespan using the statistical data from Carl Gong, science coordinator.	