



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Caneel Young	Project Number S0424
Project Title Is Lactobacillus rhamnosus the Solution to Anxiety Relief?	
<p style="text-align: center;">Abstract</p> <p>Objectives The purpose of this experiment was to try and distinguish whether or not Lactobacillus rhamnosus could make for a solution for average people who feel the need for anxiety relief, or if it could even supplement prescription medication for those with actually anxiety-disorders. In my experiment I used mice to test this.</p> <p>Methods I used basic mice care supplies to ensure that the mice were comfortable throughout the duration of the experiment. I constructed an elevated plus maze by hand using cardboard, tape, and plastic wrap to test the anxiety levels of both groups of mice both before and after treatment with the probiotic. I used cat hair to make anxious the second group of mice. I used Lactobacillus rhamnosus supplements (specifically the culturelle LGG type) to try and decrease anxiety levels in both groups after the baseline test.</p> <p>Results I found that the difference in anxiety levels between the baseline test and the final test after the consumption of L. rhamnosus over two weeks was significant only for the average mice (no cat hair group) and not for the stressed mice (cat hair group).</p> <p>Conclusions These results provide evidence for the conclusion that L. rhamnosus could be used as a solution for the average person who feels anxious, but not for someone clinically diagnosed with anxiety.</p>	
Summary Statement By testing anxiety levels in mice using an elevated plus maze, I found that Lactobacillus rhamnosus significantly decreases anxiety levels only in average mice compared to stressed mice.	
Help Received My mother helped me with taking care of the mice. Other than that I designed and executed the project by myself.	