



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY**

Name(s) Christian Mueller	Project Number J2209
Project Title Effects of Dietary Supplements on Brown Planaria	
<p style="text-align: center;">Abstract</p> <p>Objectives Measuring the regeneration rate of planaria after being introduced to several different dietary supplements.</p> <p>Methods One hundred and five brown planaria, seven petri dishes, two milliliters or milligrams of zinc, protein, sugar, vitamin E, vitamin A, and vitamin D3, and a metric tape measure. Tested the difference in planaria's regeneration rate when introduced with different dietary supplements.</p> <p>Results After being introduced with different dietary supplements, every planarian shrunk in size, all except the control group. Some vitamins did more or less harm than others.</p> <p>Conclusions As shown from my results, all of the supplements decreased the planarians' length, which was not what I expected in my hypothesis. In conclusion, the dietary supplements that I tested harm planaria and their regeneration rate.</p>	
Summary Statement I tested to see whether dietary supplements boost planaria's regeneration rate or not and by how much.	
Help Received I received some advice from my science teacher, who also ordered the planaria.	