



**CALIFORNIA STATE SCIENCE FAIR  
2016 PROJECT SUMMARY**

<b>Name(s)</b> <b>Davyd Slesarenko</b>	<b>Project Number</b> <b>S2112</b>
<b>Project Title</b> <b>The Effects of Colas on Turbatrix aceti</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of the project was to determine which variety of Coca Cola was healthier and why. <b>Methods/Materials</b> The pH was tested first and it was determined through NaOH titration. The effects of the certain pH were determined by tests on trials of Turbatrix Aceti that was made through a half-half combination of Turbatrix Aceti culture and the liquids being tested. Control was made in a similar fashion. After, the effects of Aspartame and Sugar were tested on Turbatrix Aceti through trials filled with culture and the proper ratios of sugars. This organism was chosen in particular due to its pH similarities to a human esophagus.  Materials used include: Turbatrix Aceti culture; H <sub>3</sub> PO <sub>4</sub> 15 M ; NaOH 6M; micro pipets; burettes ; Aspartame, sugar, dH <sub>2</sub> O; Coca Cola Regular; Coca Cola Diet; Apple Cider Vinegar; safety equipment. <b>Results</b> The survivability of the Turbatrix Aceti was observed under a microscope. The survivability results of the Turbatrix Aceti were compared. The Diet Coca Cola was determined to be worse for an organism due to the presence of Aspartame. <b>Conclusions/Discussion</b> The Aspartame being worse for consumption means that the Coca Cola Diet is worse for consumption than Regular Coca Cola and therefore the popular belief about the Coca Colas is false as is the Coca Cola Diet Advertisement campaign.	
<b>Summary Statement</b> The lower calorie beverages were determined to be dramatically worse for consumption than the regular kind due to the presence of Aspartame in the lower calorie variety.	
<b>Help Received</b> My AP Chemistry teacher M. Morgan thought me titration; my AP Biology teacher L. Hua provided 6 M NaOH; my STAR 1 teacher Ms. Ramirez-De La Cruz provided glassware.	