



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Emma Faciane; Hayley Minassian; Julia Wright	Project Number S2103
Project Title The Behavioral Effects of Sodium Lauryl Sulfate on Caenorhabditis elegans	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to determine if sodium lauryl sulfate is present in face washes and if it will cause behavior differences in c. elegans.</p> <p>Methods/Materials SLS, c. elegans, Clinique face wash, Olay face wash, HPLC. Face washes were run through HPLC to detect if SLS was present, then 3 different serial dilutions were exposed to the worms.</p> <p>Results SLS was detected in face washes. Four groups of C. elegans were treated and suffered from behavioral movements such as size, energy, and death.</p> <p>Conclusions/Discussion Face washes that don't list SLS as an active ingredient and still have a foaming effect, do indeed have SLS which is activated by water. The C. elegans that were treated all suffered from behavior effects which can be parallel to the effects SLS may have when used on human skin.</p>	
Summary Statement As measured in the behavior differences in C. elegans, SLS can be toxic to organisms exposed to it.	
Help Received For HPLC, we were mentored by Dr. Greg Cauchion, and our teacher Dr. Malhotra	