



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Hannah M. Olson	Project Number J2123
Project Title Which Acne Medication Really CAN Zap That ZIT?!	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Which Acne Medication Really CAN Zap that Zit? Because acne is bacteria-based, the experiments in this project involved growing two types of bacteria, and observing which reagent it reacted to the best. This was done by growing two blood agar Petri dishes of E. coli, one Petri dish of staphylococcus epidermidis per reagent, plus one control for each, then proceeding to place them in a homemade incubator, checking twice a day for growth progress, then measuring the growth resistance perimeter caused by the reagent</p> <p>Methods/Materials My hypothesis was tested by growing two blood agar Petri dishes of E. coli, one Petri dish of staphylococcus epidermidis per reagent, plus one control for each, then proceeding to place them in a homemade incubator, checking twice a day for growth progress, then measuring the growth resistance perimeter caused by the reagent</p> <p>Results Interestingly, my experimental results both did, and did not support my hypothesis, which stated that clindamyacin would work the best to eliminate the infecting bacteria. While the E.coli bacteria hardly reacted to the reagent at all, the staphylococcus epidermidis showed large signs of growth resistance. For the E.Coli, Salicylic Acid came in first, and next came Clindamyacin, followed by Benzoyl Peroxide and tretinoin Gel. In the Staphylococcus Epidermidis test, Clindamyacin came first, Then Benzoyl Peroxide followed by Salicylic Acid then Tretinoin.</p> <p>Conclusions/Discussion The information gained from the expirimental data of this project could be used by: doctors, who would like to prescribe the best acne medication to their patients struggling with it, teenagers with mild acne who are looking to reduce it, or people of all ages struggling with acne, or who have oily, acne-prone skin, and would like to reduce the risk of getting acne. Although the results of this project do not completeley support my hypothesis, they have given me a great deal of knowledge on acne and the medications that can cure it. from the data I gained, I am able to resolve that, for mild cases of acne, I definetley reccomend Salicylic acid, especially by my own good expirince with this medication.</p>	
Summary Statement Finding the best of four acne medications.	
Help Received My stepmother, for helping me with the inoculation technique, overseeing safety and sterile process, and for helping order the supplies.	