



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Medha S. Vallurupalli	Project Number 34319
Project Title Natural vs. Synthetic	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Through this experiment, I was trying to find a new way to treat illnesses and diseases.</p> <p>Methods/Materials The materials used in this experiment include; 3 petri dishes, e coli bacteria, Penicillin, Augmentin, Honey, garlic, tea tree oil, rosemary oil, oil of oregano, forceps, test tubes, an incubator, filter paper, and pens. In this experiment, I prepared the solutions for the natural products and the antibiotics. Then, I prepared the E coli. Bacteria culture. After all of the solutions were made, I spread a layer of the E coli. Bacteria culture onto a prepared petri dish. Next, I dipped the circular filter paper plates into the solutions and placed them around the petri dishes. After 24 hours, I measured the size of the inhibition zone around the filter paper. My independent variables are the types of antibiotics and natural products used and the dependent variable is the size of the inhibition zone.</p> <p>Results From this experiment I discovered that natural products work as well as, and in some cases better than antibiotics. Not only did the natural products fight the bacteria, some fought better than the antibiotics. I was able to prove my hypothesis correct. Through this experiment I hoped to discover a new way to cure illnesses and I was successful.</p> <p>Conclusions/Discussion In the real world, a common man could use my project everyday. Natural products are much more cost-efficient in comparison to antibiotics and they also have less risks. Stronger antibiotics are created to take the place of antibiotics that bacteria has grown resistance to. One day there won't be a stronger antibiotic to create and there won't be a cure for many illnesses. If natural products can take the place of antibiotics, there would be a healthy way to cure and prevent disease.</p>	
Summary Statement In this experiment, I found a more effective way to cure and prevent illness and disease.	
Help Received Mother helped me gather my materials. Mrs. Cohen provided me an incubator.	