



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

Name(s) Arianne Daw	Project Number J0505
Project Title How Do Genetics Affect the Way People Respond to Drugs?	
<p style="text-align: center;">Abstract</p> <p>Objectives The purpose of my project is to figure out why some people have a better response to drugs than others.</p> <p>Methods Materials: Laptop, Writing Utensils, Notecards, PharmGKB.org, NCBI SNP database I tested my hypothesis by using the PharmGKB website to find alleles associated with alternate responses to the drugs. I then used the NCBI SNP database to find out whether the SNP is in an exon, intron, or near the gene.</p> <p>Results I found that some people had an increased or decreased response to the drugs, based on their genetic makeup. I discovered that the SNPs and different alleles played a part in the drug responses.</p> <p>Conclusions I realized that not everyone has the same response to a certain drug. Because of the differences in our DNA, such as SNPs, some have an increased response to drugs, while others have a decreased response. Although some mutations do not occur in the coding part of the gene, they may still have an effect on the response to the drug.</p>	
Summary Statement I showed that differences in genetics affected the responses people have to drugs.	
Help Received I conducted the research and experiment myself.	