



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Marci O. Kirchberg</b>	<b>Project Number</b> <b>S0315</b>
<b>Project Title</b> <b>The Dangerous Link between Tasting Abilities and Smoking Tobacco</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of my experiment was to determine if a person's genetic tasting abilities affect their decision to smoke tobacco. <b>Methods/Materials</b> Forty-three human subjects were surveyed on their tasting abilities and smoking habits. The subject's status as a super taster, normal taster or non taster was determined by their ratings of a number of taste papers (PTC, thiourea, sodium benzoate) and the number of fungiform papillae on a known area of the tongue. A q tip was used to dye the tip of the tongue with blue food coloring. A hole was punched in a note card and placed on the tongue. A magnifying glass and flashlight were used to count the papillae in that area. A confidential survey concerning smoking habits was administered to the subjects. <b>Results</b> Of the smokers, 28% were super tasters, 40% were normal tasters and 32% were non tasters. Of the non smokers, 45.4% were super tasters, 45.4% were normal tasters, and 9.2% were non tasters. A Chi-square analysis comparing tasting ability and smoking habits produced a value of 2.355 with two degrees of freedom. (not significant) A Chi-square analysis comparing tasting ability and rating of the taste of smoking tobacco produced a value of 8.42 with 6 degrees of freedom. (not significant) <b>Conclusions/Discussion</b> According to my statistical analysis, there is no correlation between a person's genetic tasting abilities and their decision to smoke tobacco. This leads me to believe that other factors, such as culture, religion, social pressures or medical background, must play a larger role in a person's decision to smoke tobacco.	
<b>Summary Statement</b> My project explores the relationship between genetic tasting abilities and smoking habits.	
<b>Help Received</b> Parents helped gather data and create display	