



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Morgan M. Ard	Project Number J1705
Project Title Is a Dog's Mouth Really Cleaner Than a Human's?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective was to compare the bacteria from dog and human saliva. My hypothesis was that the dog saliva would have much more bacteria and a greater variety as well, despite the common belief that a dog's mouth is cleaner than a human's.</p> <p>Methods/Materials I took fifteen saliva samples from dogs, thirteen from humans, and twelve controls all within a one hour period. I then put the individual samples on Petri dishes with nutrient agar, sealed them, then stored them in a container kept at approximately seventy-two degrees Fahrenheit with no light. every day for three days (on the fourth day the colony forming units got too large to count)I counted the colony forming units, observed the color and shape, and photographed each Petri dish (forty total).</p> <p>Results The dog saliva bacteria grew very fast with many colonies and colors such as pink, orange, white, gray, and black. The human saliva bacteria had few colonies and with fewer colors; those colors being orange, pink, and white. For some reason, while the dog and control samples continued to grow, the number of bacterial colonies in the human samples decreased after seventy-five hours. I can't explain why, but that was rather odd. The control samples in the end surprisingly had more colonies than the human samples. The only colors from the controls were gray and white, and the number of colonies was still much less than the dog samples.</p> <p>Conclusions/Discussion My results did support my hypothesis. There were many more bacterial colonies in the dog samples than there were in the control and human samples. I did this experiment because I never believed the common saying that a dog's mouth is cleaner than a human's. Dogs do pretty gross things with their mouths, like licking themselves clean, playing fetch with muddy tennis balls, and eating out of the garbage. Most people don't put potentially gross items in their mouths, and do brush their teeth every day. I'm not sure where people got the idea dog's mouths were cleaner but, I have heard it and read it repeatedly. It didn't sound right to me and I wanted to discover the truth for myself once and for all. I am glad my hypothesis was correct, now people can know that you can't believe every thing you hear; particularly about a dog's mouth being cleaner than a human's.</p>	
Summary Statement My project compares the growth of bacteria from the saliva of dogs and humans.	
Help Received Mom drove me to the beach path where I took the samples, Dad helped me learn the graphs for the display and helped me order the Petri Dishes.	