# CALIFORNIA STATE SCIENCE FAIR
## 2007 PROJECT SUMMARY

**Name(s)**
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**Project Number**
**J1408**

**Project Title**
## Bacteria Facteria

**Abstract**

**Objectives/Goals**
Bacteria is everywhere, even inside our mouths. But who has the most bacteria in their mouths, humans or dogs? The purpose of this project is to determine which species harbors the most bacteria.

**Methods/Materials**
Swab samples of saliva were taken from 4 humans and 4 dogs. The samples were put in petri dishes inside a dark, homemade incubator for 5 days. With the use of a heat source (lightbulb), and thermometer, the temperature inside the incubator was kept at between 99.5 - 102.0 degrees.
Photographs were taken daily. The amount of bacterial growth and the smell of the dishes was recorded daily. After the 5th day, a final record was made of the bacteria appearance.

**Results**
Each of the samples showed a lot of bacterial growth, with the exception of my mom's. The growth of bacteria seemed to match an increase in smell. By the 5th day, the petri dishes smelled pretty terrible, but the visual appearance of bacteria was very clear.

**Conclusions/Discussion**
As was suspected, dogs have more bacteria in their mouths than humans. Dogs eat off the ground, and they eat everything, while humans each things meant to be eaten. For comparison purposes, the same test was used on a cat and a rat. We found that rats have a lot of bacteria in their mouths, even more than dogs.

**Summary Statement**
We share love and space with our dogs, but does our bacteria distinguish us?

**Help Received**
My dad helped build the incubator, we received petri dishes from Dr. Mike Campbell at UCSF, technical advice from Dr. Fred Neidhardt at UMich, my mom helped design the layout of the board and helped type.