



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Jordan L. Pluchar	Project Number J2126
Project Title Swine Flu Sanitizers: Truth or Hogwash?	
Abstract Objectives/Goals My project was to discover which form of hand sanitation is the most effective in killing bacteria. I was curious to determine if many of the product claims were actually correct. Methods/Materials I used sixteen petri dishes filled with agar and eight different cleaning products. The different sanitizing products I used were Up & Up, Purell, Cvs Foam, wipes, rubbing alcohol, bar soap, soft soap and water. I would then infect my hands on common surfaces (countertop, light switch, door handle and trash can lid) and would take a sample of how much bacteria was on my hands. Once I did this, I would clean my hands with each cleaner and sample how much bacteria was left on my hands. I repeated this process for all the sanitizers. Results I found that seven of the eight sanitizers that I used (Up & Up, Purell, Cvs Foam, wipes, rubbing alcohol, bar soap and soft soap) cleaned all the visible bacteria off my hands. The only "cleaner" that did not work by killing bacteria was a water rinse. Conclusions/Discussion I concluded that seven of the eight cleaners killed all the bacteria. Although, I did find some bacteria colonies growing in the rubbing alcohol petri dish. From my observations, the colony appeared to come from airborne bacteria. From these results, I could not effectively decide which cleaner was the best, so I took into account the price and convenience of the products. After I thought about these new factors, I considered that the Cvs Foam and rubbing alcohol were the best sanitizers. Although I considered these products the best choices, I discovered that many of the product claims were actually correct.	
Summary Statement My project was to discover the most effective and least expensive way to clean bacteria off your hands.	
Help Received Dad helped kill the bacteria with me, show me how to spray paint board, distribute agar in petri dishes, help swab my hands	