



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Sarah J. Leads</b>	<b>Project Number</b> <b>J1320</b>
<b>Project Title</b> <b>Superbugs</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective was to find out if there were resistant bacteria on common places we touch(ie. hand railing, door handle, key board, faucet handle, and light switch). <b>Methods/Materials</b> In my experiment I tested five different common places: hand railing, door handle, key board, faucet handle, and light switch. Then I took four different commonly used antibacterial products, Listerine, Purell, 409, and amoxicilin (antibiotic), and saw if any of the bacteria on the different places were immune to any of the products listed. If they were immune to all four, I would be able to conclude that they are antibacterial resistant bacteria, or on the verge to becoming resistant. <b>Results</b> In conclusion there were no "Superbugs" on any of the five different common places. E. Coli and Microsocus Luteus, bacteria found on common places, were both immune to Listerine. E. Coli was found to be immune to Purell as well as to the Listerine. <b>Conclusions/Discussion</b> My hypotheis was not supported in my experiment. I thought that there would be antibacterial resistance found on some of the common places, due to the constant misuse of antibiotics and antibacterial products, but there wasn't. I now know from my experiment and research that there are a great amount of bacteria found on commonly touched places, and that each of these different types of bacteria are quickly becoming immune to some of our defense mechanisms like taking antibiotics.	
<b>Summary Statement</b> My project was about finding out if there are any antibacterial resistant bacteria on some of the common places we touch(ie. hand railing, door handle, key board, faucet handle, and light switch).	
<b>Help Received</b> I had help from a biology teacher, Cheryl Powers, at a high school lab.	