



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

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| Name(s) Kyle C. Lee | Project Number J1423 |
| Project Title Can Bacteria Become Immune to Antibiotics? | |
| Objectives/Goals I will set up a experiment that shows if amoxicillin will kill all bacteria. Can the bacteria (bacillus) become immune to the amoxicillin. | |
| Abstract Methods/Materials I first obtained 36 petri dishes with nutrient agar already poured. plates were placed at room temperature. steralized equipment. I made concentrations and dilutions of amixicillin. I took 250 ml pill of amoxicillin and diluted with different amounts of water. depending on concentration needed. Weakest levels in first set of plates, continually getting stronger as experiment went on. Pipette plates with weakest concentration rate of amoxicillin (6.25 x 10 to the negative 8 power grams per mil). Streaked 8 plates with bacteria. Incubate for 3-4 days. Observe growth of bacteria. Plate with most growth was then streaked onto a new set of plates with a higher dilution rate of amoxicillin. This was repeated until final dilution rate of (2.5 X10 to the negative fourth grams per mil). | |
| Results Series 1 all plates showed positive growth on all plates except 1. Series 2 - two were negative on growth. one positive. and one contaminated Series 3 - all plates were positive Series 4 - all plates were positive Series 5 - positive | |
| Conclusions/Discussion This shows that if you don't take complete dosage of antibiotic prescribed the bacteria will eventually become immune to it. According to my experiment, I was able to prove that bacillus did eventually become immune to the amoxicillin. | |
| Summary Statement My project is going to prove if bacillus can become immune to the antibiotic amoxicillin. | |
| Help Received Teacher taught scientific process, high school teacher provided materials, mom and dad helped with supervision, and scientifically done correctly. | |