

Julia Ludwig

*The Effect of Disinfectant on the Eradication of a Biofilm*

When working on my project this year, I was interested in this because it was a new topic for me to work on. My hypothesis was “If the 100% solution is used on the biofilm, then the biofilm will have the most damage. When I got to the microbiology lab, I first put on my safety equipment and took out all my materials. Next, I used sterile scissors to cut the filter paper and placed it on the blood agar plates. Then, I mixed the culture into the TSB and pipetted it on the paper and put the cover on top. After that, I let it sit for 24 hours. I came back the next day and put the alcohol solutions over the culture, which is in the filter paper and over the agar, and let it sit for another 24 hours. The next day, I recorded the data on a 4mm graphing sheet.. After I performed my experiment, my findings showed that the more alcohol used on the biofilm, caused it to eradicate the most. Also adding more water to the solutions, the biofilm becomes bigger. My results were pretty consistent overall with my hypothesis, because the Petri dishes showed growth that went in a pattern. When I found these results, it was what I expected because alcohol is a good cleaner/disinfectant that kills bacteria, and showed to kill the particular bacteria I used the more, the more you add. It was interesting because now people could use alcohol on a biofilm to make it smaller if needed.