Acne Medication Against E. coli

McClain, Tiffani (School: Jasper County High School)

Acne is an issue that every individual deals with at some point in their life. For most, high school is the time where acne is the most prominent. In addition, the Covid-19 pandemic has made masks mandatory in most schools. Many students constantly wear the same mask. The result, a bacteria build-up on their face causing a spike in acne. This project investigates the effectiveness of 6 different acne medications to eliminate E. Coli grown on agar plates. After pouring agar (and allowing it to set), E. Coli beads were spread across 4 master plates to create bacteria lawns. The bacteria from the master plates was then spread to the remaining 5, followed by incubation for 48 hours. After observing the bacteria that grew during incubation, sterile paper disks, soaked in acne medication, were added to see how well the bacteria in surrounding areas was removed in 48 hours. The hypothesis was that if an acne medication costs more, then it will better kill bacteria, producing a larger zone of inhibition. The hypothesis was proven predominantly true as the medications that were the highest and 3rd highest in price killed bacteria the best.

Awards Won: