

Genetics Day 2 Interpretation Questions

1. Interpret your data. This includes:
 - a. Day 1 plates – did all of the strains match your predictions from GEN Day 1?
 - b. growth curves using OD₅₅₀ and CFU/mL for both types of media
 - c. comparison of the data obtained from the two kinds of media
 - d. how many CFU is equivalent to 1 unit of OD₅₅₀

2. If a transposon inserted into a gene for necessary for arabinose metabolism in one bacterium during your mutagenesis, a resulting white colony would grow on your Mac Ara Kan mutagenesis plates.
 - a. What would result on your Mac Ara Kan mutagenesis plates if a transposon inserted into a gene for necessary for mannose metabolism? (Mannose is another sugar that can be used by *E. coli* as a carbon source.) Explain your answer briefly.

 - b. What would result on your Mac Ara Kan mutagenesis plates if a transposon inserted into a gene for necessary for DNA replication? Explain your answer briefly.

3. How can a strain of bacteria be phenotypically Lac⁻, but genotypically lacZ⁺?