

## GEN Day Four Interpretation Questions

1. Interpret your data from the phage titering experiment. Topics that you discuss should include:

- a. What was the titer of your phage stock?
- b. What was the M.O.I. for your mutagenesis (Expt. IIA)?
- c. What can you infer about what occurred during the mutagenesis you performed given the MOI that you actually had versus the MOI that we were aiming for?

2. Interpret your data from the patching plates of your newly isolated white mutants.

Topics that you discuss should include:

- a. Were you successful in creating an *ara::lacZ* translational fusion?
- b. Into what gene did the transposon insert in each of your mutants?
- c. Did you successfully confirm that the “white” phenotype you saw was because your mutants were Ara-?

3. Today we infected bacteria with P1 phage. On GEN Day Two, we infected bacteria with lambda1205 phage. For the following aspects of the infections, state whether the two infections were similar or different, and explain your answers.

- a. whether the phage could lyse the bacteria
- b. what the MOI was that we were aiming for

4. On GEN Day Five, we will use the P1 transducing lysates you made today to infect bacteria. On GEN Day Two, we infected bacteria with lambda1205 phage. For the following aspect of the infections, state whether the two infections were similar or different, and explain your answer:

- a. whether the phage were carrying endogenous phage DNA and/or foreign DNA [Note: Foreign DNA would be any DNA that phage in the “wild” would not possess (ie. any DNA that includes sequences that didn’t originate from phage).]