Reference:

Todor H, Dulmage K, Gillum N, Bain JR, Muehlbauer MJ, Schmid AK. 2015. A transcription factor links growth rate and metabolism in the hypersaline adapted archaeon *Halobacterium salinarum*. [Molecular Microbiology 93(6):1172-82](http://onlinelibrary.wiley.com/doi/10.1111/mmi.12726/abstract;jsessionid=AD6D9BCEE17203ECA3C78BC4E40E75F0.f03t02)

Big Picture:

1. What over-arching question did the authors aim to address?
2. What hypothesis are the authors testing?
3. What are the main conclusions from the paper?
4. Why is this research important?

Vocabulary terms (define and, when applicable, give an example from the paper)

1. Genetics
2. Wild-type
3. Mutant
4. Transcription factor
5. Archaea
6. Metabolism
   1. catabolic
   2. anabolic
7. Gluconeogenesis
8. Glycosylation
9. Complement (as in “phenotypes are complemented upon the addition of glucose”)
10. Isogenic
11. Metabolomics

The “Results” section is organized into 5 sections of text, each with a corresponding figure. For each section, use the results and associated figures/tables to answer the following questions:

1. What is the question that is being addressed?
2. What are the conclusions from the data and how do they support or refute the authors’ hypothesis?