

## RADIOLAB Podcast *CRISPR* Homework Assignment

Name: \_\_\_\_\_

Listen to the periodic table segment of the **Radiolab Podcast** “[Antibodies Part 1: CRISPR](#)” *Click on link to access podcast. You must have internet access to do this.* Then completely answer all questions below. Your grade will be based on how complete and correct your answers are.

Podcast URL: <http://www.radiolab.org/story/antibodies-part-1-crispr/> (Or Google “Radiolab CRISPR”)

1. Describe the strange thing that the Japanese scientists found in *E. coli*'s bacterial genome.
2. What does the acronym CRISPR stand for?
3. What type of DNA was found to be inserted in the bacterial DNA?
4. What advantage did this foreign DNA provide to the bacteria? Be specific about how the bacteria are using the foreign DNA as protection.
5. This discovery has been turned into a gene editing tool (CRISPR). Describe how it works. *(You need to listen to quite a bit of the podcast to understand this).*
6. What are some of the amazing possibilities that they discussed for this new gene editing technology? *(You need to listen to the entire podcast to give a complete answer to this question.)*
7. What are some of the controversies / potential dangers that they discussed with respect to the use of this new technology? *(You need to listen to the entire podcast to give a complete answer to this question.)*
8. Where does Jennifer Doudna (“The Dude”) think we should draw the line at the use of this technology (not use this technology), at least for now?