RADIOLAB Podcast "Rodney vs. Death" Homework Assignment

Name: _____

Listen to the [“Rodney vs. Death” Radiolab Podcast](#) (Control + click on link to access podcast. Or go to http://www.radiolab.org/story/312245-rodney-versus-death). Then answer the following questions. Your grade will be based on how complete and correct your answers are.

1. This podcast begins with the story of a teenage girl, named Jeanna, who developed mysterious medical symptoms. Summarize the beginning of her illness, before she went to see the infectious disease expert in Milwaukee. What significant piece of information led Jeanna's pediatrician to refer her to an infectious disease expert?

2. Once Jeanna was transferred to Dr. Willoughby of Milwaukee Children's hospital, how did her symptoms progress?

3. Throughout history rabies has been a disease that is essentially 100% fatal. So how did the crazy historical "cures" described, such as application of a rooster's anus to the bite wound, ever catch on?

4. How does the rabies virus enter the body and then travel to the brain, its target tissue? How is this different than how most viruses find their target tissue in the body?

5. If you are bitten by a rabid animal, you can still avoid developing rabies if you get vaccinated. At what point is it too late for the vaccine to help?

6. What are the symptoms of rabies? Describe the course of the disease. Why would the symptom of hydrophobia developed by rabies victims be advantageous for the virus?

7. What is excitotoxicity and what might it have to do with how a rabies infection affects the brain?

8. What unconventional treatment did Dr. Willoughby try with Jeanna and how does it relate to excitotoxicity in the brain? Why did the doctor think that this untested treatment might work? What was his rationale? And finally, did it work?

9. Jeanna's treatment by Dr. Willoughby is now referred to at the Milwaukee Protocol. What is its current success rate?

10. Do you think that the Milwaukee Protocol is just another rooster's anus? Support your answer.