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| **iLearn BI 101** | **Microbe Diversity Assessment:**  **Disease Eradication Nomination** | Name: |

**Procedures:**

Now is your opportunity to demonstrate what you have learned about microbe diversity. After completing this activity and question set you will be submitting this document for grading through the course website. Upon completion of this assignment with the minimum required score, you will have completed the Microbe Diversity module. The details on the grading and submission process can be found on the course website.

Bill Gates is one of the wealthiest men in the world, making his fortune in the computer industry. With the vast fortune he amassed, Gates is also well known for his philanthropic interests. In 2000, Bill Gates established the Bill and Melinda Gates Foundation. Through this foundation Bill and his wife have invested billions of dollars to research in many charitable organizations and scientific research programs that the Gates family is passionate about. One of these passions focuses on eradicating infectious diseases such as malaria, AIDS and tuberculosis. The Bill and Melinda Gates Foundation invests an estimated $800 million a year to the improvement of global health.

If it were within your power to have the National Institute of Health (NIH) or the Center for Disease Control (CDC) focus on one disease to eliminate from the ills of humanity, which disease would this be? Science and citizens succeeded in eliminating small pox & polio in the later 20th century in a grass roots effort that started much in this way: Average people pushing for change, and without the backing of a multimillion dollar company!

For the disease you have chosen, answer the following questions by clicking on the grey text box and begin typing. Be sure to answer the questions in your own words, using appropriate vocabulary and terminology learned in the lecture, lab, and reading materials. It is expected that each answer is 2 – 3 paragraphs in length. Keep in mind that this unit is on microbe diversity; therefore you must choose an infectious disease that is caused by a microorganism. When completed, submit this document through the submission page on the course website.

1. Name the disease (including its scientific name) and identify if it is viral, prion, protist or bacteria.

1. Explain how it is transmitted. Be specific to the lifecycle of the microorganism. Often, microorganisms have a complex life cycle that involves several other species to be reproductively successful. Include details on the microbe’s reproductive methods, mode of transmission and prognosis for the infected, ease of transfer to other individuals (i.e how contagious is it?).

1. Give a history of your chosen disease. How many people worldwide and/or nationally are affected by this disease? What is the relationship humans have had with the disease throughout history? Have there been any famous (or infamous) cases in the news?

1. Relate why you think this particular disease should receive disproportionate focus above all other diseases.

1. Aside from joining forces with a multi-millionaire computer magnate, outline some approaches that could be taken by NIH or CDC in an effort to eradicate your disease. Can you identify any unusual or defining characteristics to this disease that might be the key to its unraveling?