Jonathan Quang 11/13/14

1WW Biology - Ms.Prabhu

Post Lab #7

1. When the protists encountered an object, they reacted in various ways. If the object was hypothetically food for the protists around the food, the protists would clump or swarm around the food. If the object was an obstacle, the protists would exhibit a different behavior. The protists would bump into the obstacle, move backwards, turn, and proceed in a different direction .

2.Paramecium interacts with the yeast cell by attempting to find yeast cells and "eat them." Structures that appear to be cilia assist in movement of the paramecium and food particles into what should be the oral groove. Once the yeast cells are brought into the cell, they are packaged into food vacuoles. The paramecium pack themselves full of the yeast cells.

3. The color of the Congo red yeast as it is circulated in the food vacuoles darkens into a mostly black with a hint of red color. This color changed indicates that the pH of the food vacuole is becoming more acidic. This is likely due to acidic enzymes digesting the food.

4. Once the slide was under the microscope, one must work quickly for two reasons. One reason is that sucking the protists up the dropper introduced a lot of stress to the protists and cut them off the larger food supply in the jar it was originally in. The second reason is that the light from the microscope produces a high temperature on the slide from a microscopic perspective. The protists were more likely to die under these conditions.

5. As the exposure time under the microscope increased, the overall movement of the protists decreased. The food supply for the protists was dwindling and the increase in temperature produced by the light also stressed out the protists. Mass protist death soon followed.

6 , 1) There are numerous differences between protists and prokaryotes. Protists do not have cell wall, but prokaryotes have a cell walls made of peptodoglycan. Another difference is that protists have a nucleus to contain hereditary material while prokaryotes have circular DNA that is much more spread out.

6, 2) Secondary endosymbiosis occurs when a nonphotosynthetic protist engulfs another protist that has chloroplasts. Most of the engulfed protist disappears, leaving a chloroplast surrounded by four membranes.

6,3) Dinoflagellates in an ecosystem are an important component of the phytoplankton that reside in large bodies of water mainly the ocean. They also function as a food source for larger organisms. When dinoflagellates reproduce very quickly, disaster can occur. The large presence of dinoflagellates can dye the water red, causing a red tide. The decay of billions of these protists ca cause large scale oxygen depletion. Fish suffocate due to the lack of oxygen. Oysters, mussels, and clams will have a feast, filtering the protists from the water and consuming them. Large concentrations of neurotoxins produced by the dinoflagellates accumulate, and any animals that eat these mollusks will experience potentially lethal paralysis.