The Effect of Propylene Glycol on Chlamydomonas reinhardtii in Correlation to the Effect of Vaping on Human Lung Cells

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In this experiment, researchers aimed to identify the effect of propylene glycol on the function of cilia in algae culture chlamydomonas reinhardtii in relation to the effect of vaping on human lung cells. Researchers made a control solution with 10 ml of distilled water and 1 ml of algae culture chlamydomonas reinhardtii; 1 ml of this solution was placed on a microscope slide, and researchers observed the movement of the algae culture. Then, a solution with 10 ml of distilled water, 1 ml of algae culture chlamydomonas reinhardtii, and 5 µL of propylene glycol was made and sat for 30 seconds; 1 ml of this solution was placed on a microscope slide, and researchers observed the movement of the algae culture under a microscope. Then, a solution with 10 ml of distilled water, 1 ml of algae culture chlamydomonas reinhardtii, and 10 µL of propylene glycol was made and sat for 30 seconds; 1 ml of this solution was placed on a microscope slide, and researchers observed the movement of the algae culture under a microscope. Researchers observed a decrease in speed with an increase in propylene glycol. Algae that was in the solution with 10 µL had no movement after approximately a minute. Due to the lack of necessary equipment and the algae's disorderly movement, researchers were unable to calculate the velocities of the cultures. This research can serve as the starting point for future research regarding this topic. Propylene glycol makes up part of the e-base liquid in vaping devices, and vaping is growing in popularity, which makes this research very important because people who use vaping devices should be made aware of the long term effects of the chemicals going into their bodies.

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