The Impact of Nicotine, Vaporizer, CBD Oils on Planarian Regeneration and Cell Memory

Gessey, James (School: Flasher High School)

Humanity is always looking for the next fix, and because of this we have created and used many different substances. In this study nicotine, vaporizer liquids, and CBD oils were tested to see how each would affect regeneration and cell memory in planarian brown worms. The planarians studied for ten days. Within the research period, the planarians were exposed to the three substances and cut in half to see how the substances would affect the regeneration processes in planaria. Also during the research periods, planarians were exposed to sugar and light to test the conditional ability of the planarian, which directly correlates with the planarian's cell memory. The results of the study showed that Vaporizer fluids and Nicotine had very little effect on the planarians in lower concentrations, but in higher concentrations, there were adverse effects on planarian regeneration. CBD oils cause completely dissolved planarians. All three substances had a negative effect on cell memory. The study shows that as we take these substances, no matter what kind, is extremely harmful to human health. It affects the peripheral nervous system by damaging nerve cells, and it stops cells from completing healthy mitosis.

Awards Won: