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Mixing Prescriptions? The Inactivation of Tamoxifen by SSRIs on Lumbriculus variegatus

The purpose of this research project was to investigate the effects of Lexapro (Selective Serotonin Reuptake Inhibitor) antidepressant on Tamoxifen's ability to regenerate Lumbriculus variegatus. For the procedure the dosages of Tamoxifen and Lexapro were determined. Once solutions were mixed each was added to a microcentrifuge tube to the 0.5 ml mark. For the mix of Tamoxifen and Lexapro 0.25 ml of each was added to the tubes. The worms were cut into three pieces and each piece was placed in the appropriate tube. They were allowed to regenerate for one week and were measured three times. This was repeated for a second trial. The researcher can conclude that Tamoxifen was affected by Lexapro. The control group in trial 1 and 2 had growth percentages of 22.58% and 47.06% for the head, 20% and 46.73% for the middle, and 17.24% and 26.67% for the tail. In trial 1 and 2 the worms that were exposed to the Tamoxifen had an average growth percent of 50% and -100% for the head, -5.26% and -100% for the middle, and -100% and -100% for the tail. This shows that the Tamoxifen was working and killing the cells. Trial 1 and 2 growths for Lexapro were 40% and 7.32% for the head, 4.17% and 10.26% for the middle, and -35.71% and -0.51% for the tail. The percentages for the Tamoxifen and Lexapro group in trial 1 and 2 were 66.67% and -60% for the head, -9.09% and -21.88% for the middle and -53.57% and -63.64% for the tail. This means the Lexapro interfered with Tamoxifen and prevented it from killing the worms' cells.