Cognitive Regeneration of Planaria

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Contributions to the advancement of technology for the betterment of our health will be a key component in allowing us humans to improve our quality of life and improve overall longevity. This specific contribution aims to explore the idea of introducing controlled magnetic fields during healing processes. One problem that comes with manipulating magnetic fields is that too much can be life threatening, but too little can have little to no effect. I contributed to this idea by conducting an experiment which used planaria and different controlled magnetic fields. The planaria served as subjects in which I bisected 4 groups of 4 and put in 4 different controlled magnetic fields, as well as a group that wasn't bisected with the highest magnetic field and a controlled variable. Over the course of 14 days, I measured each of the planaria and kept track of the regeneration process. At the end of those 14 days, the outcome was rather surprising. The planaria which was exposed to the strongest magnets actually shrunk and took longer to regenerate. The group with the second strongest magnetic field and the non-bisected with the highest magnetic field were the groups in which the best outcomes were observed. They all managed to grow a bit faster than the rest and showed facial features faster than the rest of the groups. The group with the lowest magnetic strength, for the most part, grew at the same rate as the controlled group, showing that magnetic fields truly do impact the regeneration process. Finally, I believe that my results (with further research and studies) can eventually help us humans to invent faster healing processes by using controlled magnetic fields.

Awards Won: