Electromagnetoreception in Planaria

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In this project, the planaria's actions towards a magnetic field is being tested.I believe that this is very important because this could lead to a discovery in a sensory neuron in aquatic and in flatworms. This could show more relations as to what and how their behavior correlates to the geomagnetic field that the earth emits. The hypothesis investigated whether or not the simplest flatworm, planaria, could sense the pull of the geomagnetic field. If 20 planaria were exposed to neodymium magnets, then they will have no less than 90% affection rate no matter the change in diet or transparency of the flask. There is a total of 40 planaria were on a liver diet and the rest is on an egg diet. In two groups, two will be in a solid and the rest in a clear glass flask. Neoodymium magnets were applied to each side of the spring water filled flask to represent the geomagnetic field. With the experiment, it showed that the planaria did react to the magnets no matter the diet or transparency of the flask. For all clear groups, there was a high percentile of 93.45% and 92.91 for solids. The conclusion did meet the hypothesis. An overall average of 93.22% of planarias were affected by the neodymium magnets, 1 minute after exposure in each trial, never going below 90%. This shows that the diet change and transparency change had no impact on the planaria's electromagnetoreception. The next step would be to locate and identify the very first magnetosensory neuron in planaria.

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