



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Angad Gill; John Anthony Santiago	Project Number J2202
Project Title The Effect of Blue Light on Planaria Regeneration	
<p style="text-align: center;">Abstract</p> <p>Objectives The objective of our study is to determine the effect of close distance and prolong exposure of blue light on head regeneration of planaria.</p> <p>Methods The Planaria was cut into head and tail. The tail was placed into numbered petri dishes and separated into 3 set up. -Set up 1 was exposed to 4 hours and 8 hours of blue bulb light everyday for 14 days -Set up 2 was exposed to 4 hours and 8 hours of blue grow light for 4 hours and 8 hours for 14 days. -Set up 3 was control and was not exposed to close distance blue light. Everyday the Planaria were checked using digital microscope attached to laptop for signs of head regeneration. The first day there is a sign of head regeneration was recorded and analyzed.</p> <p>Results Close distance blue light exposure made the head of the planaria regenerate faster. The planaria exposed to longer (8 hours) blue light using blue grow light grew faster than the 4 hours. The planaria that were not exposed to close blue light regenerated their head slower.</p> <p>Conclusions The close distance exposure to blue light made the planaria head regeneration faster. This means that the effect of close distance exposure to blue light on Planaria might have similar effect on humans. It might mean that close distance blue light exposure may help humans in wound healing. However, it might also mean that blue light exposure to humans might cause abnormal cells to regenerate faster that could lead to tumor or cancer cells.</p>	
Summary Statement Exposure to close distance and prolonged blue light made the head of the planaria regenerate faster.	
Help Received Consulted a teacher on statistical analysis of our result	