



# CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

<b>Name(s)</b> <b>Ashlee J. Fong</b>	<b>Project Number</b> <b>J2203</b>
<b>Project Title</b> <b>Ouch... A Cut!</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this project was to see if ultraviolet rays, or UV rays, effected the regeneration of planarians. My hypothesis was that the group of planarians with no exposure to the UV rays would grow more than the groups of planarians with one minute, two minutes, and three minutes of contact with UV rays because UV rays can decrease the generation of cells in an organism. <b>Methods/Materials</b> Before I cut the planarians with the razor, I numbered 20 plastic containers 1-20 and filled them with 100mL of bottled water. Then I took twenty planarians and with a razor, I cut the head off so that the head measures 4mm and placed one head in each container using a pipette. After each container has one planarian head, I placed one container under UV lights for one minute. After one minute, I took the first container out and replaced it with another one for one minute until five containers have been under the UV lights for one minute. Next, I placed five containers under the UV light for two minutes and then five more containers were placed under the UV lights for three minutes. The next day, I used a caliper to measure how long each planarians was. Finally, I repeated the steps above for eight more days to be able to monitor the planarians# growth rate. <b>Results</b> Looking at the resulting data, the planarians with no contact with the UV rays averaged 2.99 mm of growth in nine days, which is the most amount of growth in the nine days, and the planarians with one minute of exposure only averaged 1.29 mm of growth in nine days. With two minutes of contact with UV rays, the planarians in this group averaged 0.69 mm of growth in 9 days, but the planarians with three minutes of exposure had an average of 0.96 mm of growth in nine days. The last average, the average of the planarians with three minutes of exposure, actually grew an average of 0.33 mm more than the planarians with two minutes of exposure. <b>Conclusions/Discussion</b> The hypothesis that the group of planarians with no exposure to the UV rays would grow more than the groups of planarians with one minute, two minutes, and three minutes of contact with UV rays was supported. The planarian group with no exposure to the UV rays regenerated the most proving my hypothesis to be correct. Therefore, people should spend less time under the sun and its UV rays, since their cuts, wounds or injuries would regenerate slower if they are over-exposed to the sun#s UV rays.	
<b>Summary Statement</b> I investigated how the amount of time planarians spend under UV rays would affect their regeneration.	
<b>Help Received</b> My science teacher, Ms. Fisher guided me on the project and let me use her supplies. My mother and father dropped me off at school each day for over a week. My Language Arts teacher, Mrs. Diaz helped me with my research report.	