



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

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| Name(s) Bailey J. Steelman | Project Number J2114 |
| Project Title The Effect of Ibuprofen on Physarum polycephalum | |
| Abstract Objectives/Goals The goal of this experiment was to find the effect of Ibuprofen on Physarum Polycephalum's (P.P.) speed and microscopic makeup. The hypothesis states that if Ibuprofen is given to slime mold, then it will grow less than the slime mold given regular water. Methods/Materials The scientist set up the experiment by separating sixteen petri dishes into four groups of four. Eight petri dishes were in each group. Four petri dishes in the control and variable groups were specifically set up to be observed microscopically and the other four in each group were set up so speed could be observed. Results The control trial in the second group, group B, had the most growth, being an average of 9.8 mm longer than the variable group with an average of 1 mm of growth within three days. Conclusions/Discussion In three days with two drops of water every twenty four hours, the control trial, group B, on average grew 10.8 millimeters. Under the same conditions, the variable trial, also group B, only grew 1 millimeter in three days. My hypothesis is accepted. | |
| Summary Statement The central focus of the experiment was to find how Ibuprofen reacts with Physarum Polycephalum's speed of growth. | |
| Help Received None | |