



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

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<b>Project Title</b> <b>The Choices of <i>P. polycephalum</i></b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of my experiment is to see the reaction of the protist the <i>Physarum polycephalum</i> (also known as the "true slime mold") when confronted on all sides by a mixture of a repellent and an attractant while situated in an ideal environment.</p> <p><b>Methods/Materials</b> A culture of <i>Physarum polycephalum</i> was grown on nutrient agar in a petri dish. It was situated in the middle, with a ring of oatmeal around it. The oatmeal was the ideal environment. Beyond the ring of oatmeal there was a circle of the attractant-repellent mixture. Two attractant-repellent mixtures were used: Valerian root/salt and Valerian root/light.</p> <p><b>Results</b> The <i>Physarum polycephalum</i>, when confronted with Valerian root/salt, stayed within the oatmeal boundaries. When confronted with Valerian root/light, it went on to the attractant/repellent mixture. In both cases, there was heavy microbial contamination.</p> <p><b>Conclusions/Discussion</b> In conclusion, salt is a stronger repellent of the <i>Physarum polycephalum</i> than light.</p>	
<b>Summary Statement</b> A culture of the <i>Physarum polycephalum</i> , a slime mold, was placed in an "ideal environment" while being confronted by a mixture of an attractant and a repellent, and its actions were observed.	
<b>Help Received</b> Mother and Father bought me materials.	