



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Ziyaad Qureshi	Project Number J1606
Project Title Soybean Poly-what's? As a Treatment for Parkinson's Disease?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this project was to find a possible safer treatment for Parkinson's Disease. My hypothesis was that soybean polyamines will delay the breakdown and destruction of mitochondrial DNA in yeast, yielding a possible treatment for Parkinson's Disease.</p> <p>Methods/Materials Materials: Test tubes, pipettes, nutrient agar plates, soybean extract (in concentrations of 2%,4%,8%,16%), MPP, sterile streaking loops, nepholometer, incubator, test tube rack, nutrient broth. Methods: Mix each of the different concentrations of soybean extract, yeast, and MPP. Streak onto nutrient agar plates. Incubate for 24 hours at 35 degrees C. Count the yeast colony growth. Record data. Repeat twice for each soybean extract concentration.</p> <p>Results After adding MPP, the average yeast colony counts decreased. When different concentrations of soybean extract were added, the yeast colony counts increased on average.</p> <p>Conclusions/Discussion Can polyamines found in soybeans be used as a possible treatment for Parkinson's? My research shows that my hypothesis is correct and that polyamines in soybeans delay the breakdown and destruction of mitochondrial DNA in yeast and may someday lead to a possible treatment for Parkinson's Disease. The purpose of this project was to determine if there could be a safer, more natural alternative treatment for Parkinson's. In order to test this, yeast and soybeans were used. Yeast is a very common organism and is rich in mitochondrial DNA and is very easy to grow. Polyamines are naturally occurring organic compounds commonly found in plants. Soybeans contain large amounts of polyamines. In this project, soybean extract containing polyamines was tested to determine if they inhibit or slow down the death of mitochondrial DNA in yeast. After yeast colonies were killed using MPP, soybean extract was added, and the yeast colony count increased. This shows that soybean extract prevents mitochondrial DNA from being destroyed. Higher concentrations of soybean extract may need to be tested to get clearer results, but I think the results show that it may be possible to use soybean polyamines to treat Parkinson's.</p>	
Summary Statement My project is about a possible new way to treat Parkinson's Disease.	
Help Received Mom: helped with project and drove me to lab; Butch Aying helped conduct experiments; Hemet Hospital lab-used their equipment;Mrs. Serrano for her helpful advice and insight.	