



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Rupsa B. Acharya	Project Number S0501
Project Title The Effect of Carica papaya Leaf on the Lifespan of C. elegans with Fatal Germline Tumors	
Abstract Objectives/Goals The purpose of the project is to determine if C. papaya leaf extract (CPLE) extends the lifespan of C. elegans. The germline tumors of C. elegans is used to model ovarian cancer tumors. Thus the project tries to evaluate if a component of CPLE can be effective in treating human ovarian cancer. Methods/Materials Control [no CPLE] and 4 different concentrations [50, 100, 150, 200 ug/mL] of CPLE are mixed in the Nematode Growth Medium. Plates are seeded with E. coli OP50 for food, tumorous worms transferred, and their lifespans are observed. Results One CPLE concentration, 100 ug/mL, extends the lifespan by 34%, which is statistically significant with a confidence level of more than 95%. Conclusions/Discussion The results show CPLE is effective in extending the lifespan of C. elegans with fatal germline tumors. This indicates that C. papaya leaf may contain a chemical that could be effective in ovarian cancer treatment.	
Summary Statement The effect of papaya leaf on ovarian cancer, which is modeled by C. elegans with fatal germline tumors.	
Help Received Lab equipment at Lynbrook High School under supervision of advisor Mr. Jason Lee	