



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Logan C. Hubbard	Project Number S0407
Project Title Transformation of Plant Genome Using Agrobacterium	
Abstract Objectives/Goals The goal of the project is to impliment the luc gene of the firefly into a plant using Ecoli splicing and microinjection, protoplast fursion, and the use of the plant pathogen Agrobacterium Tumefaciens. Methods/Materials A. Tumefaciens; E.coli bacteria, luc genes of the firefly, dicot plants for incorporartion Results At the moment the project is still being done, due to the fact that there are so many restrictions on the pathogen I just recently got the bacteria and could begin the experiment. As for the other projects they were partially sucessful due to the fact that the plant cell glew as well as the E.coli bacteriaia. Conclusions/Discussion The E.coli expressed bioluminecence, but when it was incorporated intot the plant it did not succeed due to the fact that a cell can divide only so many times before it stops dividing due to biological law. The protoplast fusion experiment succeeded in making the plant cell glow, yet the same biological law came up and due to this it did not suceed either. Finally the luc gene was spliced into the A. Tumefaciens and then incorporated into the plant via incision or puncture. This is still being preformed and is waiting for results due the lengthy time for incorporation into the genome.	
Summary Statement The incorporation of the luc gene using different methods	
Help Received	