



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Allen Baclig; Brian Sun	Project Number S1602
Project Title Cloning 101	
Abstract Objectives/Goals The goal of this project is to determine whether or not cloning through fragmentation of a plant is possible. Using the data that we have obtained from the project, we are able to assume that the clones that we have created from the parent plant are indeed a clone, with the same genotypic makeup of the parent. This is because there was not any other plant around in the vicinity, and there because of the sterile and incubated environment, no foreign particles could affect the resultant clones. Creating a sterile environment for the clones was the most difficult aspect of this project. Methods/Materials Saintpaulia Gesneriaceae (African Violet); 10% bleach solution; 70% rubbing alcohol; 500 mL beaker; 10 mL beaker; Petri dishes; Grow light; Incubator; Timer; Indole-3-butyric acid/hormone agar growth medium; Hormone shooting medium; Gloves; Face mask; Bunsen burner; X-acto# knife; Tweezers; Glass bottles. Results October 22, 2004 Started cloning batches #1 and #2. October 22 # November 5, 2004 Not much change November 8, 2004 Noticed mold growth on Batch #1. November 12, 2004 Noticed mold growth on Batch #2. November 15, 2004 disposed batches #1 and #2, started batches #3 and #4 November 29, 2004 Noticed mold in both #3 and #4 batches November 30, 2004 Discarded Batches #3 and #4 December 17, 2004 Started Batch #5 December 17- February 1, 2005 No change, cells beginning to differentiate and calluses beginning to form. Conclusions/Discussion Based on our current data, we do not have results to prove our hypothesis true. Through our research, we have determined that it should be possible to fragment plant matter and create exact clones of the parent plant, a form of asexual reproduction. The data that we have collected so far points us in the right direction in terms of finding a DNA match between the parent plant and the clones. Because of the two cases of contamination of batches 1-4, time did not allow us to perform the DNA sequencing mapping that we had planned to prove that the parent and clone DNA#s matched, therefore we cannot tell their genotypic similarities.	
Summary Statement Cloning of plants in fragmentation.	
Help Received Mr. Beach helped with lab equipment phase 1, Professor Close helped with lab equipment phase 2	