



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Hong L. Truong	Project Number 22235
Project Title DNA Profile Analysis	
Objectives/Goals I will attempt to find similarities in the VNRT D1S80 between the two ethnic groups that will show a relationship between Pacific Islanders and Asians. Because past studies of culture and linguistics have shown that Pacific Islanders originated from Asia, I hypothesize that the alleles found among my Asian and Pacific Islander population will share the most similarities. Abstract Methods/Materials PCR (Polymerase Chain Reaction) and gel electrophoresis are used to determine the different D1S80 alleles. After isolating the DNA, PCR is used to amplify the VNRT D1S80 and then gel electrophoresis is used to separate the different sizes of the segment(s) of DNA. The bands that show up represent the size of the segment of DNA and are compared between individuals. Results Out of 61 samples that were processed, 28 came out with results. The three ethnic groups, Europeans, Asians and Pacific Islander, all have some particular characteristics about their results that tend to summarize their ethnic group. My results show that Pacific Islanders share the most similarities with Asians, that is, they have the highest percent of the same alleles also found among the Asian group. Conclusions/Discussion Europeans have a higher percentage of heterozygous alleles whereas Asians have more homozygous alleles and Pacific Islanders had equal numbers of both. Although Pacific Islanders have an equal number of both homozygous and heterozygous alleles, they still shared more in common with the Asian population when it comes to their specific alleles.	
Summary Statement The purpose of my project is to show the similarities between Pacific Islanders and Asians by analysing the loci D1S80.	
Help Received Dr. Soto supervised my project for the work done at San Jose State University; Belinda Schmahl and Don Starks supervised the portions done at Andrew Hill High School	