



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Lauren A. Pell	Project Number S1211
Project Title The Effect of Hair Type on the Prevalence of Melanomas in Horses	
Abstract Objectives/Goals The purpose of this research experiment was to learn more about the factors that predispose horses to getting melanomas. This is currently an important field of study because it could help prevent unwanted melanomas and because it is linked to skin cancer in humans. Although equine melanomas can be classified similarly to those in people, it is much more uncommon for horses to develop malignant melanomas, so scientists are investigating why horses get melanomas more often than people do while still rarely experiencing negative health effects. Methods/Materials The hypothesis for this project was that when gray horses older than six years old are tested for melanomas at random, more horses with frizzy, course hair texture will have melanomas than those with silken, fine hair textures. Horses were only included in the study if their individual owners provided information regarding possible previous melanomas, and only gray horses above the age of six were chosen, because this particular group of horses has significantly increased risks of contracting melanomas. Each horse selected was placed into a group based on hair type and the presence of melanomas to determine the link between hair type and melanomas. Results After each horse was classified into groups, the study found that 80% of the gray horses with frizzy hair had been diagnosed and treated for multiple melanomas (though not all melanomas had been diagnosed as malignant), while only 8% of the horses with silky hair had ever been diagnosed with a melanoma. Conclusions/Discussion This evidence overwhelmingly supports the hypothesis, so the result of this study is that there is a positive correlation between tail hair texture and the likelihood of contracting melanomas in gray horses.	
Summary Statement This project determined that frizzy haired gray horses are more likely to develop melanomas than silken haired gray horses.	
Help Received	