



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Laura Arnold; Megan Lederhos	Project Number J1002
Project Title Mice-opoly: Which Color is Dominant in Mice: White or Black?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Our objective is to find out which color is dominant between black and white mice.</p> <p>Methods/Materials For our procedure, we gathered the materials. We set up cages with bedding, food, water and exercise wheels. We put the mice in cages (1 male to 2 females). Black male with white female mice; white male with black females; black male with black females; and white male with white females. We checked food and water every day, and cleaned cages once a week. We checked for offspring and observed offspring colors. We recorded and compared the results and made conclusions.</p> <p>The materials included: 4 white female mice, 4 black female mice, 1 white male mouse, 1 black male mouse, three 10 gallon aquarium cages, one 30 gallon aquarium cage(divided in half), 5 food bowls, mouse food, 5 animal water bottles, 2 packages of bedding, and 4 exercise wheels.</p> <p>Results The offspring from all of the black and white litters included: 48.15% white mice, 37.04% brown(or Non-agouti) mice, and 14.8% black mice. From our black and black litters we got 56.5% black mice, 21.7% chocolate mice, 13% white mice, and 8.7% pinto(black/white) mice. From our white with white litters, the results were 100% white mice.</p> <p>Conclusions/Discussion The results showed that the white mice were pure (all of the offspring from their litters were white). Our black mice are not pure. We got four different colors from the black and black litters. Even though our results show that white shows up more often, black would not have shown up at all if white were dominate. The dominant color in mice from black and white is black. The recessive gene in the black mice is in codominant and incomplete dominance with the white allele. However, the black mice have different recessive genes. We believe that these genes are white and brown. Because the black mice have a recessive white gene, we believe black is dominant over white.</p>	
Summary Statement Our science project is about determining what color, black or white, is dominant in mice.	
Help Received Our parents helped with purchasing the mice and materials we used.	