



VETERINARY GENETICS LABORATORY  
 SCHOOL OF VETERINARY MEDICINE  
 CATTLE (530) 752-7383  
 HORSE (530) 752-2211  
 FAX (530) 752-3556

ONE SHIELDS AVENUE  
 DAVIS, CALIFORNIA 95616-8744

JUDY E. MOYER  
 1416 COMMISSIONERS RD  
 MULLICA HILL, NJ 08062

## Overo Test Results

20-Dec-2001

*Horse:* **SB FLASHY ZIPPER** *Reg#:* **274708**

*YOB:* **94** *Breed:* **PT** *Sex:* **S** *Color:* **P**  
*Sire:* **SEVENS FLASHY ZIPPER** *Reg#:* **2686624**  
*Dam:* **MY GENUINE BOBBIE**

The sample from the horse described above, received on 13-Dec-2001, has been tested as case: **OV2322**.

Horse breeding programs specializing in overo have the risk of producing a blue-eyed white foal that dies of complications from intestinal tract abnormalities (aganglionosis) due to specific alteration (I118L) in the EDNRB gene product. As far as we are aware, overo horses themselves have no specific health risks. Not all horses registered as overo are at risk to produce the lethal white overo (LWO) foals. A DNA-based diagnostic test is now available to identify those breeding horses that have the altered EDNRB gene sequence. Breeders can use the test not only to avoid producing lethal white foals, but also to identify breeding stock (solid color) sources of the overo gene that may be useful in their particular program.

**SB FLASHY ZIPPER**

*Overo type* = **N**

An interpretation of the result code follows:

- N** No evidence for the altered sequence was detected.
- N/O** One copy of the altered sequence was detected. Horse is at risk to sire or produce a lethal white overo foal if bred to another N/O horse. Usually these horses have a spotting pattern described as overo, or they may have a combination of spotting patterns, such as tobiano and overo. We have detected the N/O type in overo Paint, Pinto, Thoroughbred and Miniature horses. Occasionally N/O horses will not show the overo pattern due to suppression of the body spotting action of the altered EDNRB gene. We have detected the N/O type in solid Quarter Horses and breeding stock Paints.
- O** Only the altered sequence in the EDNRB gene was detected. This result has only been obtained with samples from lethal white overo foals.