



**Hydrocephalus Gene Test and Dwarfism DNA test order Form**

Owner Name \_\_\_\_\_ FHANA Number \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Horses Name: \_\_\_\_\_

Registration Number: \_\_\_\_\_

Microchip Number: \_\_\_\_\_

Payment Information:

Check or Money Order for \$60.00 US (Payable to Friesian Horse Association of North America or FHANA)

Please charge my credit card for \$60.00 US:    Discover    Master Card    Visa

Name on Card: \_\_\_\_\_

Card Number: \_\_\_\_\_

Expiration Date: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

CVV2 \_\_\_\_\_ (3 digit number on the back of MasterCard and Visa, the last 3 digits on the back of the Discover card)

Cardholder signature: \_\_\_\_\_ Date: \_\_\_\_\_

By Signing below I hereby commission the FHANA/KFPS to conduct DNA tests at the University of Kentucky.

Printed Name Agent/Owner: \_\_\_\_\_

Signature Agent/Owner: \_\_\_\_\_

Date: \_\_\_\_\_



### **Procedure for collection and mailing of hair samples for DNA testing**

Hair from the mane or tail must be freshly pulled so that the root bulb remains attached to the hair shaft. It is the root bulb that contains the DNA and not the shaft. A minimum of 25 to 30 root bulbs are required. Hairs can be pulled from over the withers so they are relatively short in length, or if longer hairs are pulled, the hair shafts can be cut to a length of 3 to 4 inches.

Tape hairs containing the root bulbs to an index card labeled with the horse's name and registration number. Place in an envelope labeled with horse's name and registration number. Forward this form and envelope containing the hair sample to: **FHANA, 4037 Iron Works Parkway, Suite 160, Lexington, KY 40511-8483.**

Marker test and gene test. The test for hydrocephalus is a gene test. That means that the test is based on the mutation which causes the anomaly. A gene test is 100% reliable. The test for dwarfism is a marking test. The mutation for dwarfism has not yet been pinpointed with exact precision. The test focuses on marking genes which are positioned on the DNA in the region of the mutation. In a small number of cases the test will come up with incorrect readings that are either false positive or false negative. Currently, research is ongoing to develop a gene test for the dwarfism disorder. As soon as the gene test will become available all previously tested horses will be tested again free of charge.

#### *Risk mating*

The KFPS/FHANA advises breeders to have all broodmares tested. The resulting outcome should be used to prevent combinations between stallions and mares who are both carriers of these disorders, because these matings have shown to lead to an anomalous foal in 1 out of 4 cases. With just one of both parents being carrier of either of these disorders the foal will not be affected. From this year on all stallions who are approved will be tested and the outcome will be publicized in the approval report. As long as not all stallions have been tested for carrier status it is important to consult the stallion keeper when choosing a stallion so that a match between two carriers can be avoided. The other option is to consult the KFPS/FHANA to find out if the intended match of a tested mare is 'safe'.

#### *Publication*

Carrier status of mares will not be publicized on for example the studbook certificate. On **My KFPS** owners will only have access to the outcome of the tests of their own horses.