May 2021

To All Standardbred Breeders:

Genetic abnormalities are a reality for most species, and the understanding of these conditions continues to evolve with scientific advancements. Every effort should be made within the Standardbred breed to identify animals that carry these genetic factors. While the United States Trotting Association has not identified any genetic conditions in Standardbreds, it is possible the discovery of such mutations may occur in the future using new scientific tools and studies. The USTA has partnered with the University of California – Davis to help research abnormalities in the Standardbred breed. We feel it is prudent to stay ahead of any developments related to genetic abnormalities.

Therefore, we have developed a protocol for reporting any such instances. If you have a foal born dead or alive that you feel is abnormal, please fill out the enclosed “Abnormal Foal Reporting” and consent form and return them along with photos and any available necropsy reports to:

United States Trotting Association
Attention: Gabby Fleming
6130 S. Sunbury Rd.
Westerville, Ohio 43081
Or email Gabby.Fleming@ustrotting.com

For the study, obtaining two -10 ml purple top (AKA EDTA tubes) blood samples is preferred. However, if blood is not available, hair samples can be sent in. Fill out the “Horse Information for Genetic Testing” form and mail with the blood or hair sample directly to UC Davis to preserve the quality of the sample for examination.

This packet will also be available on the Forms/Applications webpage under the Member Services tab on the USTA website. If you have questions about this study, please email gabby.fleming@ustrotting.com or call 614.224.2291, ext. 3231.

Your participation will be extremely appreciated. You will receive results of the findings when available.

Respectfully,

The United States Trotting Association
Abnormal Foal Reporting

SUBMITTER INFORMATION

Submitter Name: __________________________________________

Farm Name: ____________________________________________

Address: ______________________________________________

City, State, Zip: _________________________________________

Email: ____________________________________________________

Phone: __________________________________________________

ANIMAL INFORMATION

Foaling Date: ____/____/____

Sex: ☐ Filly ☐ Colt

Twin? ☐ Yes ☐ No

Is the foal still alive? ☐ Yes ☐ No, Death Date ____/____/____, Cause: ___________________________________________

Foal Name: ____________________________________________

Registration No: _______________________

Sire Name: ____________________________________________

Registration No: _______________________

Dam Name: ____________________________________________

Registration No: _______________________

Has the Dam been in your possession throughout the pregnancy? ☐ Yes ☐ No

If no, how and by whom did you purchase the mare from? _______________________________________________________

To your knowledge, has the Dam previously produced normal foals? ☐ Yes ☐ No

If no, please describe: ___________________________________________________________________________________

Was foaling observed? ☐ Yes ☐ No

If yes, was foaling routine? ☐ Yes ☐ No, please describe: ___________________________________________________

Was abnormality obvious at birth? ☐ Yes ☐ No

Did a veterinarian observe or examine abnormal foal? ☐ Yes ☐ No

Name: ____________________________ Phone No: _______________ Email: _______________________

Please provide detailed information about the abnormal foal:

_______________________________________________________________________________________________

_______________________________________________________________________________________________

I hereby certify that the given information is accurate to the best of my knowledge and belief.

Signature: _______________________________ Date: _________________

Please email forms, and any applicable photos, to gabby.fleming@ustrotting.com or mail to the USTA offices, Attn: Gabby Fleming.
Instructions for Obtaining Samples for Genetic Testing with UC Davis (Abnormal Foal Reporting)

If you are sending a blood sample (preferred), please fill out the “Horse Information for Genetic Testing with UC Davis” form with the foal, sire and dam’s names and registration numbers and mail it with two -10 ml purple top (AKA EDTA tube) blood samples directly to UC Davis at the address below.

To send a hair sample, follow the instructions below:

1. Pull hair samples from above the withers on the mane. DO NOT CUT THE HAIR. Cut hair samples will not provide DNA for the tests.

2. Wrap 15 to 25 hairs around a finger and hold your hand close to the skin of the horse. Pull quickly and evenly away from the neck so that the hair does not break.

3. Some of the hairs may break, but it is important to obtain hair with the roots attached for the testing procedure to be successful.

4. Place the hairs in a straight line across the center area on the “Horse Information for Genetic Testing with UC Davis” form that is reserved for the hair samples. Keep the hair together, with the roots on the left as indicated. DO NOT CURL THE HAIR. Tape the center of the hair shafts with clear tape so that the hairs stay in place.

5. Fold the hair kit as you would a business letter. Do each sample one at a time, and put each form into its individual envelope. Please ensure that the HAIR FROM ONE HORSE ONLY IS INCLUDED IN EACH KIT since it is not possible for the lab staff to detect any cross contamination that may occur.

Send the filled out “Horse Information for Genetic Testing with UC Davis” form with hair, or along with a blood sample, to:

Dr. Rebecca Bellone/Elizabeth Esdaile
Veterinary Genetics Laboratory
Old Davis Road
Davis, CA 95616-8744

Questions about the genetic abnormality study can be directed to Gabby Fleming at gabby.fleming@ustrotting.com or by calling 614.224.2291, ext. 3231.
Please fill out this top section, whether you are sending a blood or hair sample.

Foal Name: ________________________________  Registration No: _________________
Sire Name: ________________________________  Registration No: _________________
Dam Name: ________________________________  Registration No: _________________

Hair Sample Section

Place hair roots here
(15-20 hairs)  Tape

Tape center of
hair shafts here

U.S. Trotting Association
6130 S. Sunbury Rd., Westerville, OH 43081-9309
www.ustrotting.com

Phone (toll free U.S. & Canada): 877.800.USTA (8782)
Phone: 614.224.2291
Fax (toll free U.S. & Canada): 844.229.1338
Owner Informed Consent Form

Study Title for Study Participants: Genetic Investigation of Traits of Economic Importance in Horses

Official Title: Genetic Investigation of Traits of Economic Importance in Horses

Why is this Study being done?
The Veterinary Genetics Laboratory (VGL) provides animal parentage verification, identification, forensics services, and genetic diagnostics on thousands of horses yearly. Unanticipated testing results or samples with novel phenotypes are frequently identified as part of the genetic testing process. This study is being conducted to collect and utilize DNA samples in research studies to identify genetic mechanism of traits of economic importance in the horse. The VGL also collects DNA samples to assist in test development and test optimization. The overarching goal of this project is to empower breeders with tools to make more informed mating decisions as well as contribute to the knowledge base of equine biology.

Information for Participants:
- Participation in this study would involve providing a biological sample from the horse typically in the form of submission of blood or hair (mane or tail) sample to the Veterinary Genetics Laboratory. Hair sample submission is done similar to pulling the mane for show or submitting hair for parentage testing. A small sample of about 50 hairs is required. Neither hair pulls or venipuncture (pulling blood) are considered to cause more than momentary pain or discomfort and both are generally well tolerated. Rarely a hematoma may develop after venipuncture, these typically resolve with out any treatment or simply by applying pressure to the site. This hair or blood would be used to isolate DNA for genetic studies or RNA for gene expression studies.
- The sample will be used to isolate biological material for genetic studies.
- For each horse sampled we also need high quality digital photographs as well as 5 generation pedigree information.
- Follow up phone calls or emails may be necessary if any questions about the horse arise.
- Any data collected as part of participation in this study, including pedigree data, photographs, or genetic testing results would remain confidential, such that no animal, owner, or breeder would be identified without permission, but any of this data may be used for scientific purposes including publication of results without identifying a particular animal, owner or breeder.
- No risk of injury to person or horse is anticipated as a result of participating in this study. Any injury sustained while participating is the responsibility of the participant.
- The investigators named above may terminate participation at any time.
- There is no financial obligation on the part of participant or investigator associated with this study.

Why is your horse being asked to participate?
We invite your pet to take part in this clinical trial because it has been identified as an interesting case or a potential control for development of a genetic test.
If I enroll my horse, can my pet stop taking part in this study?
Yes. Participation in the study is voluntary and any participant has the right to withdraw from the study at any time.

Please note that the study researcher can remove your pet from the study:
- If your pet’s health changes and the study is no longer in his/her best interest
- If new information becomes available
- If you do not follow the study protocols and rules
- If the study is stopped by the sponsor, UC Davis’ Institutional Animal Care and Use Committee (IACUC) or a regulatory agency (e.g., FDA).

If you decide to remove your horse for any reason, it is important to let the researcher know as soon as possible. Additionally, please note that we will not remove any data that has already been collected from the study database.

What possible benefits can I expect from my horse taking part in this study?
We cannot promise any benefits to your horse or other animals from your taking part in this study; however, possible benefits include development of a DNA test that can help inform breeding and clinical management decisions.

What possible risks can I expect from my pet taking part in this study?
No risk of injury to person or horse is anticipated as a result of participating in this study. Any injury sustained while participating is the responsibility of the participant.

What happens if my pet experiences adverse event(s) because he/she took part in this study?
No adverse affects are expected from a blood draw or pulling hair. If your pet experiences adverse event(s) as a result of taking part in this study and is in need of medical treatment, please tell your veterinarian. The study sponsors WILL NOT pay for medical treatment.

What are my responsibilities if my pet participates?
If you wish to have your pet participate in this study, you will be responsible to provide specimens, information, and photographs as outlined above.

What are the costs of my pet taking part in this study?
There is no financial obligation on the part of participant or investigator associated with this study. The results of this study, including specimens collected, may have commercial value to the sponsors, the University of California Davis, and/or the researchers. You will have no legal or financial interest in any commercial development resulting from the research or from the information or materials collected.

What happens to the information collected for the clinical trial?
Your privacy is very important to us. Our researchers will make every effort to protect it. All client and animal details, and information obtained from the study will be considered confidential and will be used for research purposes. We will limit the use and/or disclosure of your information or that of your horse
to people who have a need to review this information, including the study sponsor, funding agency supporting the study and/or regulatory agencies (e.g., FDA), and other collaborators working on this study. In addition to standard electronic medical records at the UCD VMTH, some of your pet’s health information, and/or information about his/her specimen, or genetic profile obtained from this study may be kept in the VGL database for research. We may publish the results of this research but we will keep your name, the name of your pet, and other identifying information confidential.

**Who can answer questions about this study?**
For specific questions about the study in which your horse is enrolled, concerns, or complaints, please contact the study researchers:
Study researcher(s): Dr. Rebecca Bellone rbellone@ucdavis.edu 530-752-9299 or Dr. Cecilia Penedo mctorrespenedo@ucdavis.edu

This research has been reviewed and approved by the Institutional Animal Care and Use Committee (IACUC) and the Clinical Trials Review Board (CTRB). You may contact the IACUC office by phone at 530-752-2364 or by e-mail at iacuc-staff@ucdavis.edu if you cannot reach the investigator.

By signing below I agree to permit my pet ___________________________(insert name) to participate in this clinical study and undergo the procedures described to me above.

By signing below, I have read through this informed consent document and that a signed and dated copy of the consent form will be given to me.

___________________________________  __________
Signature of Owner                     Date

___________________________________
Printed Name of Owner

___________________________________  __________
Signature of Person Obtaining Consent  Date

Printed Name of Person Obtaining Consent

Owner Consent Form