



Institute of Genetics, Bremgartenstrasse 109a, CH-3001 Bern

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**UNIVERSITÄT  
BERN**

Institute of Genetics  
Vetsuisse Faculty

**Director**

## **Genetic testing (marker test) for congenital liver fibrosis (CLF) in Franches-Montagnes horses**

Congenital liver fibrosis (CLF) is inherited as a monogenic autosomal recessive trait. Affected foals die of a liver failure between 2-8 months. A well known CLF carrier with widespread use in breeding was the stallion *Elu 02119640001* born in 1964.

The Institute of Genetics, Vetsuisse Faculty, University of Bern, has developed a marker test for Franches-Montagnes horses. This test does not interrogate the as yet unknown causative mutation for CLF, but rather a single nucleotide polymorphism (SNP) in close vicinity to the causative mutation. For the CLF marker test the pedigree is required to ensure that there is a relationship between the tested horse and known CLF carriers. The CLF marker test provides only an estimate for the true genotype at the causative CLF locus. The accuracy of this estimation depends on the genetic relation between the tested markers and the causative mutation. We estimate that our CLF marker test has an accuracy of 98%.

For genetic testing a 5-10 ml EDTA blood sample of the animal in question together with a pedigree of at least 5 generations is required. For the blood samples, the use of plastic tubes is recommended. Blood samples should be sent in a padded envelope without cooling to our laboratory. They have to arrive within 3-4 days of sample taking. Please send the sample together with the pedigree and a signed order form to:

**Institute of Genetics  
University of Bern  
Bremgartenstrasse 109a  
CH-3001 Bern**

The price for a test result is **80,- CHF** plus VAT. Since individual submissions cannot be processed individually, a waiting time of 1-3 months until the result is available should be expected.

Prof. Dr. Tosso Leeb  
Institute of Genetics  
Bremgartenstrasse 109a, Postfach  
CH-3001 Bern

Tel +41 31 684 23 26  
tosso.leeb@unibe.ch  
www.genetics.unibe.ch