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LABOGEN

Genetic news

Strong collaboration with different research universities has made it possible: we have once again been able to expand our repertoire of genetic tests for dogs and cats. As our partner lab, the University of Missouri sometimes performs the test; in this case, the tests are marked with a star.

New for the dog

Dandy-Walker-Like Malformation (DWLM) in Eurasians

The so-called Dandy-Walker-Like malformation (DWLM) is characterized by hypoplasia (underdevelopment) of the cerebellum. The symptoms are various forms of ataxia, which may appear at the age of 5-6 weeks already. The intensity of ataxia varies individually, ranging from a small sway to problems with keeping balanced to sporadic falling over. In some cases, even seizures occur. Given the autosomal recessive inheritance, affected animals fall ill only if homozygous, as always with this inheritance, carrier animals are clinically healthy, but may bequeath the mutated gene to offspring.

Lagotto storage disease (LSD) in the Lagotto Romagnolo

The Lagotto storage disease (LSD) leads to a neurodegenerative disorder with cerebellar disfunction and difficulties in motor control and balance. Some dogs also exhibit abnormal eye movements (nystagmus), and/or behavioral changes such as aggression or restlessness. The first symptoms appear between four months and four years of age. This disease is an autosomal recessive trait with varying penetrance, i.e. not all homozygous dogs display all the symptoms. Prof. Leeb from the University of Bern was able to find the causative genetic variation.

Hereditary Ataxia in the Bobtail

A mutation in the RAB24 gene leads to a steadily worsening disorder of the musculoskeletal system in affected animals. The first signs are mild coordination and balance problems and intermittent tremor and appear anywhere from six months to four years of age. Later, the symptoms worsen resulting in severe difficulty in walking. The mode of inheritance is autosomal recessive.

Fanconi syndrome* in Basenjis

The Fanconi syndrome is a disorder in which the ability of the renal reabsorption is reduced. As a result, there is a loss of electrolytes and nutrients, which can be compensated less and less. Due to the loss of glucose with the urine, the most obvious findings are excessive urination and, subsequently, increased drinking. If the disease is not treated, muscle weakness, acidosis and impaired general condition result. This ultimately leads to death. In the Basenji, Fanconi typically occurs between the age of four and eight. Until recently the only way to make a diagnosis of this disease was through testing of the urine and blood. Genetic testing allows for the detection of carriers and proof of affected animals. The inheritance is, currently, still unknown.

Adult Onset Neuropathy (AON)* in the English Cocker Spaniel and Field Spaniel

Adult Onset Neuropathy is an inherited disease, which symptoms resemble those of degenerative myelopathy (DM). The first clinical signs of the disease appear typically between the ages of 7.5 and 9 years in the form of uncoordinated gait and wobbly hind legs. The weakening progresses over

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time, affects the forelimbs and eventually leads to swallowing difficulties. The neurological disorders increasingly worsen over the course of two to four years, but slower than in DM. For the time being, the University of Missouri is gathering data about symptoms of the submitted dogs. Therefore, we kindly ask you to fill out the submission form from the University of Missouri and send it in along with your sample. The appropriate form can be found on our website.

"Juvenile Laryngeal Paralysis & Polyneuropathy" (JLPP)* in the Black Russian Terrier and Rottweiler

The so-called "Juvenile laryngeal paralysis and polyneuropathy" or JLPP is an autosomal recessive genetic disease that causes breathing difficulties during excitement or physical exertion starting as early as three months of age. Likewise, a change in the bark becomes noticable. In the further course of the disease, weakness and coordination problems of the hind legs develop, which slowly expands in the front legs. Difficulty in swallowing occurs as well, with the risk of suffocation or pneumonia. The disease is incurable and leads to death within the first few months after the onset of symptoms.

New for the cats

The following tests have been added to our repertoire for cats. Myotonia congenita is an inherited muscle disease of the European Shorthair cats, which occurs due to a disturbed function of the chloride transporters. The first and most urgent symptoms include muscle stiffness and spasms. The mannosidosis is a storage disease, in which metabolites are stored due a hereditary enzyme defect in the tissue. Diverse symptoms may result, but most prominently muscle tremors are seen (Persian and Persian-like cats). The mucopolysaccharidoses type VI and VII are, also, both storage diseases. The progressive retinal atrophy rdy-PRA occurs in Abyssinians and Somali and is autosomal recessive.
As of late LABOKLIN also offers special test packages for cats that encompass the most important genetic tests for certain breeds. The cost-effective processing of several tests at the same time enables us to give you a discount on each single test by offering them together.
Package "Maine Coon" with PK, SMA and HCM
Package "Norwegians" with PK, GSDIV and Amber
Package "Persian" with PKD, hair length and genetic blood group

For more information about the new tests and the packages, please contact LABOKLIN directly (labogen@laboklin.de) or via Facebook.

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