LABOKLIN
LABORATORY FOR CLINICAL DIAGNOSTICS

Newsletter | February 2017

G ENETIC NEWSLETTER

Crufts 2017

We are very pleased to announce that we will be at Crufts this year, which is always an exciting opportunity not to be missed. We always receive samples by post and we talk to you over the phone and by email, however at Crufts we will be able to see you and discuss your requirements in more details. Again our ever popular 10% Crufts discount will be there for you. Visit us at Crufts 2017, Hall 3 Stand 7A.

Breed Specific Bundles

Australian Shepherd, Beagle, Benese Mountain Dog, Border Collie, Cavalier King Charles Spaniel, Chinese Crested, Collie (Rough / Smooth), Golden Retriever, Jack and Parson Russel Terriers, Labrador Retriever, Lagotto Romagnolo, Poodle (all types) and Pug.

Many breeders enquired about the availability of test bundles so that they can get a better picture of the genetic health of their dogs. We listened to your suggestions and we are pleased to offer Breed-Specific DNA Health test packages for the above breeds. Each bundle enables you to test your dog for the most relevant mutations available for your breed in ONE simple submission at a great bundle price.

Cystinuria

Australian Cattle Dog, English Mastiff, Labrador Retriever, Landseer, Newfoundland, French Bull Dog, British Bulldog, Mastiff and Miniature Pinscher.

Canine cystinuria is an inherited disease characterised by the kidney's failure to reabsorb amino acids, which leads to the formation of cystin crystals and stones in the urinary tract. Affected dogs suffer repeated urinary tract inflammations, and are at risk of urinary blockage, which can, if not treated promptly, lead to kidney failure, bladder rupture, and death.

Juvenile Laryngeal Paralysis & Polyneuropathy (JLPP)

Russian Black Terrier (RBT) , Rottweiler

Juvenile Laryngeal Paralysis & Polyneuropathy (JLPP) is a genetic disease that affects the nerves. In affected dogs, JLPP starts with the longest nerves in the body, one of the longest nerves is the one that supplies the muscles of the voice box (larynx) leading to muscle weakness and laryngeal paralysis as the first symptom. The vocal folds vibrate noisily and can obstruct the flow of air into the lungs when the dog is exercised or when it is hot. The dog may also choke on their food or water or regurgitate, and this can cause pneumonia. The disease then progresses to the next longest nerves which supply the muscles of the back legs resulting in difficulty getting up and wobbly gait, the hind limbs are followed by the front limbs.

Craniomandibular Osteopathy (CMO)

Cairn Terrier, Scottish Terrier and West Highland White Terrier



Craniomandibular Osteopathy (CMO) is an inherited bone disease affecting West Highland White Terriers, Cairn Terriers and Scottish Terriers. CMO is also know as Lion Jaw. The disease is characterised by excess bony growth in young dogs. CMO affects the mandibles (jaws), sometimes the temporomandibular joints, occasionally skull bones and more rarely long bones of the legs.

Clinical symptoms typically begin between 4 and 8 months of age and include periodic intense jaw pain, swelling of the jaws, difficulty eating, pain when opening the mouth and drooling. A lump of extra bone on the mandible and very often noticeable.

The condition generally disappears spontaneously about a year after symptoms are first seen.

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GENETIC NEWSLETTER

Ichthyosis in **American Bulldog**

Ichthyosis is an inherited disease that affects the American Bulldog breed. It is characterised by the presence of dishevelled coat hair shortly after birth, generalized scaling, and sticky brown scales with reddening of the abdominal skin.

A dog can be either clear (N/N), Carrier (N / ICH) or affected (ICH/ICH). Due to the recessive mode of inheritance only Affected (ICH/ICH) dogs will exhibit symptoms of the disease. Clear and Carriers will not display any symptoms, however, carriers can pass the mutation to their offspring and therefore carriers must only be bred to clear dogs to avoid having affected puppies.

A DNA test is now available from Laboklin and can help you to identify if your dog carries the mutation.

Dandy-Walker-Like Malformation (DWLM)
Eurasier

Dandy-Walker-Like Malformation (DWLM)in Purebred Eurasier Dogs with Familial Non-Progressive Ataxia

DWLM is a genetic disorder found in Eurasier dogs and it is characterised by non-progressive ataxia, symptoms have been noted in dogs at 5 – 6 weeks old. The severity of the ataxia varies between dogs, from mild truncal sway, mild lack of movement coordination, subtle dysmetric gait, imbalance and pelvic limb ataxia to severe cerebellar ataxia in puppies and episodic falling or rolling. Follow-up examinations in adult dogs showed improvement of the cerebellar ataxia and a still absent menace response. Epileptic seizures occurred in some dogs.

Obesity / Adiposity (ADI)
Flatcoated Retriever , Labrador Retriever

A genetic mutation is respobsible for increased appetite and weight gain in Labrador and Flat-Coated retriever. It is well known that some labradors are more motivated by food and are more prone to obesity than in other breeds. Researchers at the University of Cambridge found that a deletion in the POMC gene is associated with with weight, adiposity, and food motivation in Labrador Retrievers, this mutation was also identified in Flat-Coated retrievers and associated with the same symptoms. A DNA test is now available at Laboklin to test for the mutation.

Spongy Degeneration with Cerebellar Ataxia (SDCA1)
Belgian Shepherd

Spongy Degeneration with Cerebellar Ataxia, (SDCA1) is an inherited disease affecting the Belgian Shepherd breed. It is a severe neurodegenerative disease with monogenic autosomal recessive inheritance. The disease is characterised by rapidly progressing ataxia starting around the age of 5-8 weeks. Puppies are usually euthanised by the age of 8-12 weeks.

Cleft Lip / Palate and Syndactyly (CLPS)
Nova Scotia Duck tolling Retriever (NSDTR)

Cleft palate is a hole in the roof of the mouth that occurs during development of the puppy. Affected puppies are born with cleft palate. Cleft Lip is split in the lip and can occur on one or both sides of the mouth. Syndactyly is fusion of the middle two digits of the feet. Phenotype varies from cleft palate only to cleft lip and cleft palate and in both cases puppies can have syndactyly but don't always. A case of cleft nose and syndactyly has been reported.

New DNA tests recently added

- Alexander Disease (AxD) in *Labrador Retriever*
- Catalase Deficiency (CAT) / Acatalasia in *Beagle*
- Leukocyte Adhesion Deficiency III (LAD III) in *GSD*
- Lundehund-Syndrome (Lymphagetasia) in *Lundehund*
- Merle (Dapple) test now checks 4 alleles: Merle, Cryptic Merle, Atypic Merle and non-merle
- Nemaline Myopathy (NM) in *American Bulldog*
- Panda white spotting in *German Shepherd*
- crd1-PRA in *American Staffordshire Terrier*
- crd2-PRA in *American Pitbull Terrier*
- Raine Syndrom in *Border Collie*
- Severe combined Immuno-Deficiency (SCID) in *Frisan Water Dog, Jack Russell Terrier, Parson Russell Terrier*
- Spinal Dysraphism (NTD) in *Weimaraner*
- Spondylocostal Dysostosis (Comma Defect) in *Miniature Schnauzer*
- van den Ende-Gupta Syndrom (VDEGS) in *Fox Terrier and Toy Fox Terrier*
- Warbung Micro Syndrom 1 (WARBM1) in *Husky*

New Kennel Club DNA testing Schemes

- Adult Onset Neuropathy (AON) in *Cocker Spaniel*
- Degenerative Myelopathy (DM) in *German Shepherd and French Bulldog*
- HNPK in *Labrador Retriever*
- JLPP in *Russian Black Terrier (RBT)*
- PLL in *Welsh Terrier*
- prcd PRA in *Giant Schnauzers*