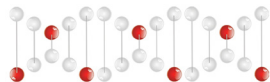




# GENETIC NEWSLETTER

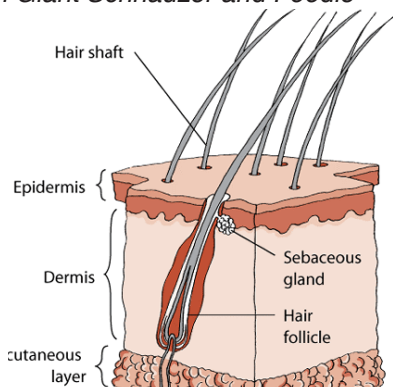


## Crufts 2024

We are very pleased and excited to announce that we will be at Crufts again this year, which is always a fantastic event that we look forward to. It is always pleasure meeting breeders whether they come to drop off a sample, to have a chat about a test, suggest a new bundle, enquire about coat colour inheritance or just to say hi. Crufts is always a great opportunity to talk to breeders about their testing requirements and to see what we can do to help. Again our ever popular **10% Crufts discount** will be available this year too. Visit us at Crufts 2024, **Hall 3 Stand 20**.

## Squamous cell carcinoma of the digit / toe (SCCD) in Giant Schnauzer and Poodle

NEW TEST



Squamous cell carcinoma of the digit (SCCD) is a breed specific nail bed skin cancer with increased risk found in black dogs such as Standard Poodles and Giant Schnauzers. It is a form of skin cancer; more specifically it is a malignant tumour in the epidermal cells of the skin.

## Myxomatous mitral valve disease (MMVD) in Cavalier King Charles Spaniel, Dachshunds

NEW TEST



Myxomatous mitral valve disease (MMVD) is considered the most common congenital heart disease in dogs as it accounts for more than 70% of all canine heart disease. The disease is chronic and progressive, early symptoms is usually a heart murmur, developing after the age of six. Approximately 30% of dogs with MMVD progress to mitral regurgitation (MR) and eventually heart failure. The disease is common in small breeds and the incidence is particularly high in some breeds such as the Cavalier King Charles spaniel (CKCS).

## Delayed postoperative hemorrhage (DEPOH) in Scottish Deerhound

NEW TEST

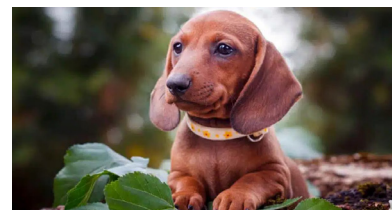
DEPOH is recognized as an important health problem in certain breeds, including Scottish deerhounds. Signs of abnormal bleeding range from severe skin bruising around the surgical site to frank oozing of blood from the wound.



## Limb Girdle Muscular Dystrophy (LGMD) in Dachshunds

NEW TEST

Limb Girdle Muscular Dystrophy (LGMD) is an inherited neuro-muscular disease affecting Dachshunds. Affected dogs show clinical signs including exercise intolerance, stiff gait, progressive weakness, the presence of an excess amount of myoglobin in the urine (myoglobinuria) which is due to muscle breakdown releasing a high amount of myoglobin in the blood, as well as difficulty in swallowing food (dysphagia) and aspiration pneumonia.



## Cerebellar Hypoplasia (CH) in White Swiss Shepherd

NEW TEST



A genetic mutation in the RELN gene has been discovered in White Swiss Shepherd dogs, resulting in cerebellar hypoplasia (CH), a condition in which the cerebellum fails to develop fully. Although born healthy, affected puppies experience difficulties such as failure to gain weight and progressive ataxia at around 2 weeks of age. Affected puppies have difficulty standing, walking in a straight line and latching onto the breast, although their suckling reflex is normal. Affected puppies had to be euthanised at four weeks of age due to worsening symptoms.

## Methemoglobinemia (MetHg) in Pomeranian

NEW TEST

Familial Congenital Methemoglobinemia (MetHg) Methemoglobinemia (Methemoglobinemia) is an inherited disease affecting the Pomeranian breed. It is characterized by an increase in the concentration of oxidized hemoglobin in the blood. A variant in the CYB5R3 gene was found in Pomeranians to cause methemoglobinemia (MetHg).

# GENETIC NEWSLETTER

## Familial Thyroid Follicular Cell Carcinoma (FTFC)

in German Longhaired Pointer

NEW TEST

This type of thyroid cancer may affect one or both thyroid glands, and a common clinical symptom is the presence of a palpable mass in the dog's neck. Other signs include intermittent cough, alopecia, polyuria, polydipsia and weight loss.



## Deafness with Vestibular Dysfunction (DVD) / DINGS 1 and DINGS 2

Dobermann

UPDATE

Dobermann can suffer from a neurological disorder known as DINGS, which can cause deafness and balance / coordination problems. This disorder is associated with variants in two different genes. One gene variant results in deafness in one ear, while the other causes deafness in both ears. This DNA test checks for two variants.



## Dilated cardiomyopathy in Dobermann

DCM1, DCM2, DCM3 and DCM4

UPDATE

Dilated cardiomyopathy is an inherited heart disease affecting the Doberman breed. The disease is characterised by dilation of the ventricles leading to progressive thinning of the wall and irregular heartbeat as well as enlargement of the ventricle, which decrease the overall heart function and output. Insufficient blood circulation can lead to build up of fluid in the lungs and other parts of the body. Affected dogs can show progressive deterioration leading to death or can be relatively asymptomatic and then die suddenly. The test detects four variants: DCM1 and DCM2 which are common in north American lines, DCM3 and DCM4 which are common in European lines.



## Osteochondrodysplasia (OCD) / Skeletal Dwarfism in Miniature Poodle

NEW TEST

Osteochondrodysplasia is an inherited disease of the skeletal muscles affecting the Miniature Poodle breed. OCD is characterized by stunted growth at around 3 weeks of age. Affected puppies and abnormal locomotion and often walk differently compared with their healthy littermates. Affected animals develop splayed hind limbs, enlarged joints, flattened rib cages, the long bones are bent and shorter, and the paws can have deformity.



## Cerebellar ataxia (CA1)

in Belgian Shepherds and Pyrenean Mountain Dog

NEW TEST

Cerebellar Ataxia (CA1) is caused by an autosomal recessive variant in the RALGAPA1 gene, which has been identified in the Belgian Shepherd breeds. Affected puppies develop cerebellar dysfunction and are less active and alert compared to healthy littermates. The puppies show a wide-based stance and ataxic gait, exaggerated gait movements as well as stumbling, staggering and intention tremor of the head. Mild proprioceptive deficits can also be detected and the oculovestibular response seems to be normal to reduced. In Pyrenean Mountain Dog the disease is caused by another variant.



## New DNA Breed Specific bundles

Our DNA bundles include the most relevant DNA tests for your breed at discounted price!

### American Staffordshire Terrier DNA bundle:

DM + NCL + crd1 PRA + D-Locus + A-Locus

### Bolonka Zwetna DNA bundle:

cord1 / crd 4 PRA + prcd-PRA\* + D-Locus + Furnishing

### Fox Terrier DNA bundle:

PLL + SCA + VDEGS + CHG

### Shih Tzu DNA bundle:

MTC + KLK + JPH2-PRA + DVL2

### Vizsla DNA bundle:

DM + ECLE + NCCD + Coat Length + Furnishing

### Pomeranian DNA bundle:

GBM + rcd3-PRA + VDR

### Poodle Pack 2 DNA bundle:

DM + NEWS + prcd-PRA\* + rcd4-PRA / LORPA + vWD Type I + Coat Colours (A, B, D, E and K Loci)

### Finnish Lapphund DNA bundle:

DM + prcd-PRA\* + GSDII / Pompes Disease + CMR

### update Shetland Sheepdog DNA bundle now includes:

CEA + DM + vWD Type III + MDR1 + CNGA1-PRA + BBS2-PRA + MCM

### update Rhodesian Ridgeback DNA bundle now includes:

DM + Haemophilia B / F9 + EOAD + JME + B-Locus + D-Locus

### update Australian Cattle Dog DNA bundle now includes:

DM + NCL + PLL + prcd-PRA\* + rcd4-PRA + Cystinuria

### update Irish (Red White) Setter DNA bundle now includes:

CLAD + Globoid / Krabbe + rcd1-PRA + rcd4-PRA / LOPRA

### update Australian Shepherd DNA bundle now includes:

CEA\* + DM + HSF4 + MDR1 + Brachyury + NCL + prcd-PRA\* + SLC

## New Kennel Club DNA testing Schemes

- Exercise Induced Collapse (EIC) in *Curly Coated Retriever*
- Laryngeal Paralysis & Polyneuropathy (LPPN3) in *Leonberger*
- POAG in *Basset Fauve de Bretagne*
- DAMS in *English Springer Spaniel*
- SLEM in *Border Terrier*
- Deafness with Vestibular Dysfunction 2 (DINGS2) in *Doberman*
- Bobtail / Brachyury (T-Box) in *Schipperke*
- Dilated Cardiomyopathy (DCM) in *Giant Schnauzer*
- Osteochondrodysplasia (OCD) in *Miniature Poodles*
- Cerebellar Ataxia (CA) in *Italian Spinone*