## **Screening in Dogs**

Canine Leucocyte adhesion disorder = Severe and recurrent bacterial infections due to neutrophil abnormalities in irsh setters.

DNA Marker Tests = Narcolepsy, Haemophilia B, Muscular Dystrophy and Wilson disease

The KC/BVA voluntary screening programmes helps breeders to identify dogs that are clinically free of diseases including hip dusplasia, inherited eye diseases.

Brachycephalic airway obstruction syndrome (shortened head) in bull dogs, cavalier king Charles spaniels.

**Chiari Malformation** and **syringomyelia** = Small skull, so cerebellum blocks CSF, pressure creates cavities. Fluid filled cavies (syrinx) in spinal cord. 95% of cavalier king Charles spaniels effected.

## **Screening in Cats**

**Polydactyly =** Inherited dominant gene common in Maine coon cats- more paws!

**Polycystic Kidney Disease (PKD)** = Autosomal dominant condition. Kidney lesions found with ultrasound. NO BREEDING with affected animals as 50% of offspring will be affected. 49% Persian and related cats. Result in kidney failure by 7-8 years old.

Gangliosidosis GM1/GM2 = Autosomal dominant. Lysosomal storage disease. Causes build-up of lipids in CNS.

**Glycogen Storage Disease Type IV** = Autosomal recessive. Norwegian forest cats. Build-up of glycogen in cells, impairs function of certain organs, especially liver and muscles. 100% mortality between birth and 14 months.

## **Screening in Horses**

Hyperkalemic Periodic Paralysis (Hypp) = Dominant defective sodium channels. Cannel becomes leaky and makes the muscle overly excitable and contact involuntarily.

**Severe combined immunodeficiency (SCID) =** inability of immune system to mount an appropriate immune response.

**Lethal White Overo Syndrome (Ws)** = Recessive F (as tove an underdeveloped, defective intestine and are unable to pass faeces.