Ichthyosis of Golden Retriever breed
A skin disease prevented thanks to a DNA test

Ichthyosis results in a profusion of dandruffs. A majority of the Golden Retriever are carriers of the gene responsible for the disease. A reliable DNA test can screen stud dogs and brood bitches, in order to adapt matings and avoid birth of affected puppies and spread of the disease in the breed.

An incapacitating hereditary disease
Ichthyosis leads to a skin disease. The first symptoms appear between 1 and 18 months by multiplying large dandruff visible on the back and belly. The skin looks dirty and scaly, and becomes dry, rough and with a hyper-pigmentation. Increased hygiene measures (special shampoos) should be considered to prevent infectious complications. The breeder or veterinarian can confuse Ichthyosis with the presence of parasites on the skin that may also be responsible for dandruff.

A very frequent disease
More than 50% of Golden Retrievers in Europe are carriers of the genetic mutation responsible of Ichthyosis. A breeder can mate without noticing a male « carrier » and a female « carrier » and produce a litter containing affected puppies.

A dog « carrier » of the mutation will not develop the disease but transmits it to 50% of the puppies. A stallion « carrier » of the mutation which is used a lot for reproduction, spreads the disease through the breed and helps to increase the frequency of the mutation and multiply the number of affected dogs.

A preventable disease
A puppy can be affected if his two parents are carriers of the mutation. Breeders unaware of Ichthyosis can mate stud dogs and brood bitches carriers of the mutation and produce affected puppies which will not develop the disease before the age of 6 months.

A DNA test called ICT-A, can detect Ichthyosis of the Golden Retriever with a reliability above 99%

Avoid the birth of affected puppies
In order to secure its kennel and avoid the risk of production of affected puppies, the breeder must screen its breeding dogs thanks to the ICT-A DNA test.

When acquiring a puppy for breeding or when a stud dog is used for a mating, the breeder verifies the genetic status of the dog for Ichthyosis asking for the result of the ICT-A DNA test.

A DNA test easy to perform
The veterinarian performs a simple cheek swab and sends it to the laboratory. The result, delivered within few days, indicates if the tested dog is clear, carrier or affected for Ichthyosis. A genetic certificate displaying the result must be used as a guarantee for a mating or to justify the sale of puppies clear of Ichthyosis.

The veterinarian who notices early skin issues in a young Golden Retriever puppy can process a DNA test to confirm or refute the diagnosis of Ichthyosis. If the dog is affected, parents have to be screened.

A breeder who knows the genetic status of the dog can select its breeding dogs, adapt matings, avoid the birth of affected puppies and limit the spread of this skin disease in the breed.

Dr Guillaume QUENEY
ANTAGENE