OMERTA

This is a common condition affecting far too many dog breeders in this and other breeds. If you haven't come across the term before it means 'Code of Silence' and originates in Southern Europe where it relates not merely to silence but a 'code of honour' in organisations such as the Mafia. In the context of dog breeders it means those who claim that their current dogs do not suffer from any disease and none of their line has ever had them either.

In other words they refuse to admit to any disease which some of their dogs suffer from or have done in the past. They refuse therefore to provide DNA samples which would further the health of the breed they claim to love even though samples can be provided confidentially.

FAMILIAL NEPHROPATHY OR HEREDITARY NEPHRITIS

This is the disease which the Animal Health Trust is currently researching to produce a DNA test – research for which we as Clubs and individuals have contributed over £11,000 (The largest contributions are £3,000 from Notts & Derby District BTC and £1,000 from the Coloured BTC). Dr Hill as Breed Health Co-ordinator wrote to all the UK Bull Terrier Club Secretaries more than a year ago.

However, the AHT reports that few samples have been received and the research cannot begin until sufficient samples have been collected (Courtesy Dr Hill N&DDBTC).

DNA SAMPLES

It is so very disappointing to find that the sample kits being sent in to the Animal Health Trust has dropped to a trickle. So much effort by a huge number of people worldwide went in to raising the funding for the development of the DNA test for the kidney problem.

However everything is at a standstill now from lack of samples. I am lead to believe that part of the reason for this is the wrong information being bandied about regarding the dogs' details required by AHT.

Genetic Inheritance

There are no Bull Terrier carriers of the kidney disease. They are either affected or clear. When mated, one gene from the Sire and one gene from the Dam is inherited by the resulting puppy.

The results are...

Clear gene from Sire x Clear gene from Dam.
This Bull Terrier puppy will never develop or pass on the killer kidney disease.

Clear gene from one parent x Affected gene from the other parent.
This Bull Terrier puppy is born with the gene for kidney disease in their DNA profile and will pass it on if used in a breeding programme.

The DNA profile the puppy is born with is life-long and will not change.

DNA Profiling

Shows hereditary connections. Impossible to do in the dog unless the Kennel Club registered name is supplied.

DNA Screening

Used on cheek swabs when looking for the mutant gene that causes disease.

The funding is now in place for the Animal Health Trust to develop the DNA test that will screen proposed breeding stock enabling us to select the Bull Terriers who are not affected with the gene for the kidney disease.

These are the facts...

The AHT does not need or want the dog's pedigree or K.C. Registered name!

All the information they are looking for is on the cheek swab you are submitting, which is DNA screened for gene content and **NOT** DNA profiling which is searched for familial profiling e.g. sire, dam or siblings. Should a gene be observed on DNA screening which may be considered the causative gene for kidney disease, it is the vet who has treated the dog and ONLY THE VET who will be contacted for further clinical information.

Confidentiality is guaranteed.

****USE ONE KIT PER DOG (All Five Swabs)****

Example of information required by Animal Health Trust.	
Breed	Bull Terrier
Pet Name	Colonel
Age	3 Years Old
Owners Surname	Heath
Veterinary Practice Who Deal With Dog	Shieldhill Vets Clinic, Falkirk, FK2 0DU & Phone No.
Clinical Information	Atopy, Inter-Digital Cysts, Hypothyroid

This information is required for identification and retrieval purposes when the sample is lodged within the DNA storage bank.

Cheek Swab sample kits and verification of the above information can be obtained from Bryan McLaughlin at the Animal Health Trust.

Bryan McLaughlin

Telephone: **01638 751000** ext 1280
E-Mail: **bryan.mclaughlin@aht.org.uk**

Please pass this file on to any and/or every single Bull Terrier owner that you know, help circulate it as far and wide amongst the breed's followers as possible.

This is a fabulous opportunity for the breed to help the dogs who we love so much and who bring so much happiness into our lives. Now we can give something back, all the AHT needs is co-operation from owners in the form of Cheek Swabs - please help in any way you can.

Swab Sample
Collection Procedure

Note: Please print out and use this form (one per dog) for sending back your swab samples, instead of the one that comes with the Cheek Swab Sample Kit from the AHT. This one is much easier to follow and is to be used only by Bull Terrier owners.

Please follow the instructions below carefully to collect the dog's DNA sample. Five cheek swabs are provided in each kit and are intended for use with one individual dog only. The samples should not be taken within one hour after the dog eating to help obtain a clean sample.

1. First label the Swab Envelope clearly with the breed, dogs pet name, age, sex and owners surname as written on the sample submission form.

2. Remove a single swab from its packaging, trying to avoid any or excessive contact with the brush end, ideally but not necessarily, by wearing latex or vinyl gloves to reduce the possibilities of contamination.

3. Hold the dog's head firmly and roll the swab on the inside of the dogs' cheek on each side of the mouth, ensuring the brush is moved across the entire cheek surface. N.B. Cheek cells are not visible to the naked eye but please brush the surface thoroughly to ensure sufficient sample is obtained.

4. Briefly air-dry the swab for a moment and place directly into the Swab Envelope previously labelled at step 1.

5. Repeat steps 2-4 with the remaining four swabs when convenient and seal in the Swab Envelope. All five swabs can be used during the same sampling session, although this isn't necessary as the dog may become impatient. Use of each swab can be at different time intervals.

6. Complete the Sample Submission form below. It is imperative that the clinical information given here is accurate otherwise it could adversely affect the outcome of the intended genetic study.

7. Return the sealed Swab Envelope along with the completed Sample Submission Form below using the return addressed envelope provided.

Sample Submission Form

Breed: **Bull Terrier**	Age/D.O.B:	Sex:
Dogs Pet Name:		
Owners Surname:		
Veterinary Practice & Telephone Number:		
Veterinary Practice Address:		
Clinical History Of Dog:		

Inheritance

ABCDEFGHIJKLMNOPQRSTUVWXYZ
ABCDEFGHIJ**K**LMNOPQRSTUVWXYZ

Genetics is a huge complicated subject, so to make things simple we will use the alphabet to help explain why your help with the donation of DNA samples is so important.

Using two alphabets (as genes are paired) to illustrate that this is where parents pass on the likenesses we see in families, some features from dad and some from mum. Some genes pass on diseases - and for this purpose I am going to stick with the kidney problem.

The first task is to determine the mode of inheritance, and Dr. Caroline O'Leary in Australia has done this and we now know that only one of the pair of genes need be different and carried by only one parent to pass on the kidney problem.

The next task is to find which is the different (rogue) gene that causes the problem. This involves collecting a huge amount of DNA material from Bull Terriers which will be screened at the Animal Health Trust. They are looking for the gene that is different in the pair - and sufficient numbers of the different gene to determine if this different gene is indeed the rogue gene.

Trawling through hundreds of samples showed a difference in gene K, but with no clinical information on the case history included on the form accompanying the sample, it cannot therefore be concluded if this is indeed the rogue gene responsible for kidney disease.

Then there was a major, major leap forward. An EDTA blood sample taken from a two year old Bull Terrier in end stage kidney failure has been sent to the Animal Health Trust and this is also found to be gene K. Now the real work starts to confirm that this is correct.

To do that that we need more and more DNA material banked from both normals and affecteds to get sufficient samples to confirm that gene K is indeed the rogue gene that is passing on the killer kidney disease.

Once that has been established the Animal Health Trust can go on to develop the DNA test that will put the breeders in a position to breed this dreadful disease out of our beloved breed that is the Bull Terrier.