

Miniature Schnauzer Annual Breed Health Report 2016

This form should be completed by your Breed Health Co-ordinator and submitted via email to the Kennel Club's Health Team (email address tbc).

Section A (to be completed by all breeds)

1) Breed **Miniature Schnauzers**

2) Does the Breed have a Health committee/group/council? Yes No

3) Please list and rank the three health and welfare conditions that the breed considers to be **currently** the most important to deal with in your breed (condition 1 will be the most important and condition 3 will be the least important of the three). We ask that you provide **up to 3** conditions unless you have selected no current health concerns below.

Condition 1 Hereditary Conditions

- Eye Conditions:
- Mycobacterium Avium Complex (MAC)

Condition 2 Cancers

Condition 3 Kidney Disorders

Or

No current health or welfare concerns

4) Please briefly outline what the breed has done in the last year to help tackle the listed health and welfare concerns (more space has been provided overleaf, or please feel free to attach any documents).

Condition 1 **Hereditary Conditions.**

- **Eye Conditions:** Cataracts, both 'Congenital Hereditary' (CHC) and 'Hereditary' (HC) forms and Generalised Progressive Retinal Atrophy (PRA) are found in the Miniature Schnauzer. Both HC and CHC are currently listed on Schedule A of the BVA/KC eye scheme. **(Continued on last page)**
- **MAC:** refers to an extremely rare but lethal defect of the immune system that allows an overwhelming systemic infection in affected dogs. This disease was first noted in the 1990s and was thought to occur in a specific line of Miniature Schnauzers. There have been reported cases in America, Canada, Europe and here in the UK. **(Continued on back page)**

Condition 2 **Cancers.** Monitoring of prevalence takes place via the results of the Schnauzer Health Survey. The results from the last survey, 2013-2014, identified: deceased dogs 46 from 187 (25%), live dogs 5 from 1613 (0.31%). This was with the top ranking reported cause of death. The current health survey information does not differentiate between the different types of cancer. Therefore changes are being made to the next health survey that will enable the capture of information which will assist in the determination

as to whether any particular types or sites of cancer are more prevalent. Owners of dogs affected with cancer, especially those types that may potentially have a hereditary link e.g. lymphomas, melanomas, are encouraged whenever possible, to submit DNA samples to AHT.

Condition 3 **Kidney Disorders.** Monitoring of prevalence takes place via the results of the Schnauzer Health Survey. The results from the last survey, 2013-2014, identified: deceased dogs 18 from 187 (10%), live dogs 4 from 1613 (0.25%). This was with the second highest ranking report cause of death. The current health survey information does not differentiate between the different types of kidney disorders nor the age of onset of problems. Therefore changes are being made to the next health survey that will enable the capture of information that will assist in the determination as to whether any particular types of kidney disorders are more prevalent. Owners of dogs affected, especially those types that may potentially have a hereditary link e.g. juvenile kidney disorder, are encouraged whenever possible, to submit DNA samples to AHT.

5) Does the breed have a dedicated health website or a health section on any of the clubs websites? Yes

6) If you answered yes to the question above, has any of this information been updated in the last year? Yes

7) In addition to a website, In the last year has the breed raised awareness of health matters using any of the following? Breed Club newsletter(s)

Please list any others. Health Seminar Planned for 2017

8) Name of Breed Health Co-ordinator completing this form **Chris Ellingworth**

9) Date: 06/09/2016

If you are a category 3 breed (previously known as a high profile breed) please also complete section B.

Section B (to be completed only by category 3 breeds)

Visual Health Assessment testing for conditions listed on Breed Watch

10) Number of visual health assessment sessions organised in the last year

11) Name of Club(s) or Society(ies) health assessment session was held at
.....

12) Number of dogs tested this year

13) Total number of show dogs tested to date

14) Total number of pet dogs tested to date

15) Do you have an appointed administrator to ensure information is collected from visual health assessments Yes No

16) Name of appointed administrator

17) Judges Education - Have any health education seminars been held this year Yes No

18) If you answered yes to the question above, please provide details (i.e. topics covered, dates etc.).
.....

19) Has health and welfare information been developed in relation to the points listed on Breed Watch, to be included as part of Judges education materials for the breed Yes No

20) Does your breed provide breed show Judges guidance on identifying health or welfare concerns Yes No Unsure

21) If you answered yes to question 2 in section A, please list the members of your health committee/ group/ council
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General Comments

Additional space for continuations from any of the previous questions, or for any general comments.

Condition 1 Hereditary Conditions: (Continued from page 1)

Eye Conditions:

All affected eye test results are published via the 3 Breed Club magazines, and, with owner/breeder written consent, pedigrees of affected adults / puppies are also published. The number of cases are monitored each year and published via the website. The Code of Ethics of the 3 Clubs with an interest in Miniature Schnauzers, strongly recommends that all Miniature Schnauzers be eye tested for CHC from 6 – 8 weeks old, once micro-chipped, and annually for HC from 6 months – 6 years of age under the British Veterinary Association/The Kennel Club (BVA/KC) scheme.

The Animal Health Trust (AHT) approached the Joint Miniature Schnauzer Eye Fund (JMSEF) in December 2015 indicating that they were now in a position to conduct a second genome scan for CHC. The JMSEF, founded in 2002 to support research, inform, educate and promote responsible health testing for hereditary eye conditions affecting the Miniature Schnauzer, approved to fund this project which will form the second phase of the AHT's study of CHC. It will cover the second whole genome scan and a possible whole genome sequencing (WGS) of a CHC case or an unaffected first-degree relative.

This second genome scan will involve the 13 additional cases of CHC (since the first scan) together with 13 first-degree relatives' controls that are available making 26 dogs in total. This scan will be

merged with the previous one for the analysis. It is hoped that the AHT researchers will be able to identify a region of the genome associated with CHC. Then, using their current whole genome sequenced CHC case, they will try and find candidate variants or mutations underlying that association and will test them in any additional cases and unaffected Miniature Schnauzers that they have in their database. This will hopefully lead them to a successful outcome. This new research began May 2016.

The latest BVA/KC eye statistics for 2015 (Eye test stats: BVA litter registrations: Kennel Club March 2016: Compiled March 2016) are as follows:

From the 1071 litters KC registered

CHC: 748 litters were litter screened which equates to 69.8%. 3 of these litters were found to have CHC affected puppies with 3 pups out of the 3 litters affected (1 of a litter of 4, 1 of a litter of 5, 1 of a litter of 8)

HC: 1040 adults were eye tested and 6 had affected certificates, equating to 0.67% of tested dogs. This is a slightly lower affected figure than 2014. The 4-year breed incidence in dogs tested is 0.40% including the CHC results

Mycobacterium Avium Complex (MAC) (Continued from page 1)

While the numbers of affected dogs remains extremely low, it is considered a serious, life threatening and lethal disease. Clinical research continues to be done by Dr. Urs Giger at the University of Pennsylvania, College of Veterinary Medicine and all cases are referred to his laboratory at the University.

Dr. Giger and his team have recently characterized the molecular basis of the genetic predisposition to MAC and developed a DNA test for this predisposition in Miniature Schnauzers (June 2016). This genetic test which uses EDTA blood or cheek swabs, can:

1. Confirm clinically diseased Miniature Schnauzers
2. Identify Miniature Schnauzers at risk of developing MAC before showing signs (from birth on); both of them are genetically affected, i.e. homozygous for the mutant allele/gene
3. Detects carriers (heterozygotes), which carry the mutant allele/gene but remain clinically asymptomatic, i.e. they are not genetically immunocompromised and thus not at risk of developing MAC but can pass on the mutant allele to their offspring
4. Identify Minis that are 'clear'

At this moment in time, both Dr. Giger and the American Miniature Schnauzer Club (AMSC) are recommending that every breeding Miniature Schnauzer should be DNA tested for this disease, unless the animal is completely descended from parents tested as 'normal' dogs.

As the Breed Health Co-coordinator (BHC), I have asked the committees of the 3 respective Breed Clubs with an interest in miniature schnauzers to consider and support a request to the KC to look to list the DNA test availability. In addition, because of the serious, life threatening and lethal nature of this defect, I have also asked that they consider the recommendation, similar to that agreed by AMSC on Dr. Giger's advice, that all breeding miniature schnauzers should be DNA tested for this disease. To date, one club has replied supporting both recommendations following their committee and still

await the responses from the other clubs following their committee meetings.