American Miniature Schnauzer Club Health Committee Position Statement and Recommendations Regarding Systemic Mycobacterial Infections in Miniature Schnauzers September 25, 2012

The American Miniature Schnauzer Club (AMSC) has received additional disclosures of cases of mycobacterial infections in Miniature Schnauzers in the past 2-6 months that suggest the mutation suspected of predisposing certain dogs to infection is increasing in frequency (or reporting) within the breed population. Pedigree analysis leads us to believe this mutation has been lurking through multiple generations and may now be infiltrating the breeding programs of an increasing number of kennels both in Northern America and abroad. While the evidence suggests a recessive transmission, there are several cases that do not follow a simple recessive mode of inheritance OR there is another, heretofore unknown, family of "producers" with no discernible lineage to the Bandsman line. The CHI Square Analyses previously published and offered as additional support for a Simple Autosomal Transmission (SAR) was incorrect and sufficient information is not available to assess the data correctly at this time.

Over the past 10 years, the AMSC has seen evidence of dogs with 50% risk of being carriers bred to bitches with risk of being carriers. Sometimes these matings are conducted by breeders who are knowledgeable about this defect and accept the calculated risk but more often than not, risky matings are executed by breeders who may not have been advised of the risks when they bred to or purchased a dog owned or bred by someone else. We have also seen producing stud dogs exported to become popular stud dogs elsewhere, thereby inevitably increasing the carrier and disease rates in other countries. We are beginning to now hear of cases in other countries and are able to trace lineage to these exported U.S. dogs. It may be practical and feasible to manage certain non-lethal genetic defects and some congenital defects by appropriate risk-reduction breeding methods, especially for those defects where the mode of inheritance is known and the defect is congenital and identifiable by the breeder before the dog is placed. This type of management ensures puppy buyers and other breeders are not unwittingly purchasing a dog that will become sick later. However, for a SUSPECTED recessive lethal adult-onset defect, such management strategy is irresponsible using dogs identified as producers of such a defect. The AMSC Health Committee recognizes that there are many dogs within the population that descend from known producing dogs and not every dog or bitch descending from these dogs are necessarily a carrier of this defect. The AMSC Health Committee recognizes that while UNPROVEN, the mode of inheritance is SUGGESTIVE of a recessive transmission and the breeding of a risky dog to another risky dog (defined as dogs with Bandsman's Newsprint or Jerry-O's Future Shock ANYWHERE in the pedigree) is strongly discouraged. Effective management of these dogs within their breeding programs is imperative to protect the public and to preserve breed health. Given the potentially 'zoonotic' nature of this disease, (able to be transmitted from dogs to humans, although it must be stressed that there has been no case - not one - recorded) and the evidence discovered through these most recent disclosures as well as the history of this disease in Miniature Schnauzers, the AMSC Health Committee is compelled to address this serious issue with breeder members directly. Our position and recommendations are based on evidence collected over the last 14 years and the evidentiary analysis of a large group of Miniature Schnauzers which strongly suggests a simple autosomal recessive trait. Our committee members have not failed to recognize that these recommendations will potentially impact many breeding programs and are offering to provide confidential assistance and pedigree evaluation to help breeders understand their risk of producing affected dogs and to help them understand how the continued open breeding of dogs with risk will impact the future health of our breed.

The AMSC committee position is that until a DNA test is available to detect the genetic status of a dog in regard to this mutation, in consideration of the serious impact this disease has on breed health, the following measures should be taken:

- 1. The AMSC Health Committee has sent and will continue to send all US member/owners of any sire or dam notification that their dog/bitch is the parent of an affected dog when an owner-disclosure of a confirmed case of systemic Mycobacteriosis is received by the committee.
- 2. The AMSC Health Committee recommends all dogs/bitches that produce even one offspring that is documented to be affected with systemic Mycobacteriosis be retired from public use immediately upon notification of the owner.
- 3. The AMSC Health Committee strongly discourages the continued use of producing dogs/bitches in private breeding programs, but at a minimum, breeders who choose to

continue to use these dogs/bitches privately should consult with the health committee for quidance.

- 4. The AMSC Health Committee recommends that any breeder who participates in the subsequent private or public breeding of such identified dogs/bitches, with the intent of selling the offspring as pets or breeding animals, advise the purchasers in a written contract of the risk that the dog they are buying is a carrier for this mutation or may become infected with a lethal opportunistic pathogen such as mycobacteria. The seller should also provide the buyer with available information on the signs of such diseases, contact information, and the information on how to participate in current research activities should the purchaser's dog become ill.
- 5. The AMSC Health Committee urges all owners of dogs/bitches that are identified as producers to notify all breeders who have bred to such stud dog or purchased the offspring of such dog/bitch for breeding purposes that such dog/bitch has produced an affected offspring. This notification should occur as soon as notified the AMSC Health Committee will assist their members with this if desired.
- 6. The AMSC Health Committee may at any time deem it necessary to contact member/breeders who have offspring of dogs/bitches identified as confirmed producers to help educate them on the risk that their dogs/bitches may be carriers for the mutation.
- 7. The AMSC Health Committee is available to assist any US member/ breeder with breeding decisions or information to assist the breeder with making breeding decisions. This is offered as a service and in no way will interfere with breeding management within their respective program. Any analyses will be based on information available to the committee at the time of service and must not be considered a guarantee. Confidentiality will be maintained in all instances. Individual dogs within the pedigree cannot be identified regarding their status unless a public disclosure has been submitted for such dog by the owner or the owner has announced the dog's status publically via a club venue such as a board meeting or club newsletter.
- 8. The AMSC health Committee strongly encourages open dialogue among breeders regarding this defect so that all breeders will have access to pertinent information.

Our committee has developed and reviewed these recommendations with the best interests of our breed and our breeders in mind. We see no other means of curbing what appears to be an increase in our carrier and affected rates for this devastating condition in the absence of a DNA test. We are sponsoring a free seminar (which will be videotaped and available on DVD) with a professional veterinary geneticist who will be addressing breeding management principles in genetic defects and will specifically target MAC in our breed. Research efforts continue at the University of Pennsylvania to isolate this mutation in the hope of developing a DNA test. Those interested in providing samples for this research can contact Dr. Urs Giger as giger@vet.upenn.edu or any health committee member at amschealthgroup@yahoogroups.com.

If you have any queries or concerns about this condition or the provision of DNA to the US research, then please contact Tony McDermott SCGB Health Co-ordinator, either via the website or Lichstone@aol.com (put SCGB Health in the subject line).

At present, the incidence of the condition in the UK is almost negligible with just 2 cases reported up to September 2012. By making this information available to our members and breeders, the SCGB, along with the MSC and the NSC is endeavouring to ensure it remains so.

Our advice must be, as with any situation relating to inherited conditions, breeders should make themselves as fully aware as possible of the breeding lines they are considering, but especially before using dogs or bitches who may be 'new' to the UK. We would expect any caring breeder to be aware of this condition and also know those dogs, believed by both Urs Giger and the AMSC Health Committee, to be primarily implicated in its transmission. We would also urge stud dog owners to be absolutely transparent with any breeder who considers using their dog.

For your copy of the MAC Seminar DVD, (cost approx \$20), send your contact details to amschealthgroup@yahoogroups.com. They will then advise actual cost and method of payment.