

ILU health group meeting <via Skype> 23 July, 2014-07-24

1- LPN2 test announcement.

The group discussed the release of this second marker test for another form of polyneuropathy that affects our breed, and the reception that it has received as expressed in social media forums.

It was reported that the Leonberger Health Foundation has kindly sponsored some of these tests for immediate need in breeding stock, on the understanding that the results of any of these financially supported LPN2 tests will be published in the public domain, so that the results might be beneficial to fellow breeders. A pedigree analysis will be undertaken on these results and a report will follow.

The ILU health group once more agreed that for the LPN1 mutation, (which is inherited as a recessive trait), a “Breed and Replace” philosophy should be promoted, whereby carriers should not be excluded from breeding, BUT that the aim should be to secure an N/N descendant from any carrier so that the line can continue without this dangerous mutation being perpetuated further.

In the case of the LPN2 mutation, which is inherited as a far more dangerous dominant trait, we would instead recommend eliminating any dog with the affected gene from breeding, whether it had one or two copies of the mutation, because in dominant inheritance, there are no “carriers”, there are only affecteds. It has been estimated that this mutation is present in only around 5% *or less* of Leonbergers. Therefore removing them from breeding will not have an overtly harmful impact on our gene pool. If steps are not taken to eliminate this harmful mutation, there is a danger that one or more popular sires with this harmful mutation might pass it on widely before the fault is identified.

The ILU health group will recommend that all clubs make a clear translation into their own language of the LPN2 press release for distribution among their own membership.

2- Proposed Health Seminar

The group once more discussed various options for the proposed 2015 health seminar. It was decided that the topic(s) should be designed to be useful to the breeders and therefore <hopefully> beneficial to the future generations of Leonbergers. We also agreed that our intended audience should be as widely international as possible.

A general title was agreed: “The Art and Science of Breeding, breeding for a healthy population”. The aim of the presentations will be to educate breeders and owners about the rules of population genetics, and how to interpret tools like the Coefficient of Inbreeding, so that they can use this information to

safeguard the future of the breed and to preserve type without sacrificing health.

Two proposed models for the seminar will be drafted for circulation to the delegates meeting in September 2014. One for an event built into the weekend of the annual Leonberger clubshow in September, and the second proposing a bigger seminar that will happen along side the Leonberger regional show in May. These proposals for plan A and plan B will each spell out:

- 1- The proposed date and time slot of the seminar,
- 2- The proposed venue, its location and seating capacity,
- 3- The proposed speakers for each version of the event, the length of presentations and their topic of discussion.
- 4- How the issue of multiple languages will be managed, (which is likely to be the same for both alternatives.
- 5- The likely costs and logistical requirements for each plan.

3- Proposed International Leonberger DNA- Bank

Preliminary discussions have now taken place with three proposed Leonberger DNA-Bank partner institutions; The University of Minnesota, The University of Bern, and The Animal Health Trust in the UK. All three principals, James Mickleson, Tasso Leeb and Cathryn Mellersh know each other and have a history of previous successful collaborations. A conference call will take place in the next month or so with all proposed partners as well as representation from the Leonberger Health Foundation who has proposed to fund the development of an end-user updatable health database to partner the DNA-Bank. The aim of this conference call will be to specifically answer the questions set out in the proposal that was submitted to the delegates meeting in Leonberg in September 2013. These are:

- 1- Can we find appropriate facilities to bank DNA samples from Leonbergers, (possibly one in Europe, and one in North America and probably with research partners) and what will be the logistics and potential costs – if any - of this service?
- 2- Will we be able to control these samples and to have a role in determining how and by whom they are used in the future? This will include safeguarding the confidentiality of individual dogs so that breeders will feel no threat in cooperating.
- 3- Can we find a way to encourage the sharing of current collections of DNA from Leonbergers that are already stored by various research programmes and make them also available for future research collaborations? Between the

various regions over the years, there have been many collections, and it would make sense to not discard these but rather to see if they can also be brought into a common collection for future research.

4- How can we ensure that the health status of dogs from whom samples exist is kept up to date? In other words, if a young dog gives a blood sample and then, if they become ill for example with DCM in a few years, how can we tag that information to the DNA sample so that future scientists will know it is an affected or clear sample?

5- Can we develop a standardised DNA and health survey collection and handling system that all member clubs can then use as a model in their own countries? This will allow us to continue to add to the Leonberger DNA bank in a unified and sensible way.

At the conclusion of this fact finding process, we will be able to bring together what we have learned about these questions and hopefully will be able to build a full proposal to present at the meeting in September 2014.

Wilma Kroon,
Anita Treichler,
Metha Stramer ,
Teresa Schlaffer,
Sharon Springel.