

## UC DAVIS ADDISON'S STUDY REQUESTING BLOOD SAMPLES NOW

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The Addison's study at UC Davis began collecting samples in December 2003 and has been ongoing since that time. As of August 1, 2007, 760 NSDTR samples have been collected. Sue and I want to THANK each and everyone of you who have participated so far by submitting blood or cheek swab samples. We could not do this study without your help.

As of September 1, 2007, the UC Davis study will be requesting only blood samples since the new genetic mapping technologies utilize DNA from blood rather than cheek swabs. Therefore, the cheek swab program will essentially be discontinued except in cases where submitting blood becomes a hardship. Blood is the preferred medium for DNA studies since cheek swab DNA can be contaminated with dog food, nursing milk and other matter which can confuse the DNA information received. UC Davis researchers would like to collect BLOOD samples from as many Tollers as possible for this ongoing study. Additionally, medical updates for Tollers that have already been including in the study are always welcome.

The goals of the UC Davis study are:

1. Characterize the disease in the NSDTR
2. Define the heritability
3. Define the mode of inheritance
4. Identify the mutation causing Addison's disease
5. Develop a DNA test to identify affected and carrier Tollers.

**The UC Davis researchers'** first article was published in the *Journal of the American Veterinary Medical Association (JAVMA)* on August 1, 2007 and addresses goals 1 through 3. The complete article is available on the *JAVMA* website and club website as well.

<http://avmajournals.avma.org/doi/abs/10.2460/javma.231.3.407?journalCode=javma>.

The study estimates the incidence of Addison's Disease in NSDTRs in the United States is approximately 1.4% -- similar to the incidence of 1.02% identified by the Toller Health Coalition Health Survey (1992 to 2002). Both findings indicate the genetic risk for Addison's Disease in Tollers is approximately 10-fold greater than estimated for the general dog population (0.1%). The article explains the clinical features of the disease in Tollers, the fact that it is inherited in our breed, and that the mode of inheritance appears to be autosomal recessive.

The UC Davis researchers are currently performing a genome scan to locate the chromosomal region of interest that is associated with Addison's Disease in the NSDTR genome. This will be followed by fine mapping with the overall objective of identifying the mutation responsible for expression of the disease. In this phase of the study, blood samples are required.