

**“Blood, Sweat and Cheers!”**  
**A win-win opportunity for owners of**  
**Alaskan Malamute, Keeshond, Samoyed, and Collie dogs!**

Purebred dog owners can now contribute to research that will improve diagnostic testing for hypothyroidism in affected dogs. We have a chance to collect important laboratory data for our individual animals and contribute to a study which may affect the way hypothyroidism is diagnosed in these breeds. Don't miss your chance to participate!

The AKC Canine Health Foundation, Collie Foundation and OFA have funded a study to determine breed-specific reference intervals for thyroid hormone concentrations in samples from healthy pure-bred dogs. Rebecca Davies, PhD, from the University of Minnesota Veterinary Diagnostic Laboratory is conducting the study which includes several breeds (**Collies, Keeshonden, Alaskan Malamutes, and Samoyeds** are being recruited). Dr. Davies is currently looking for volunteers.

Hypothyroidism is caused by an inability of the thyroid gland to produce enough thyroid hormones. Thyroid hormones regulate the metabolism of the entire body. Veterinarians diagnose hypothyroidism by requesting measurement of the concentration of thyroid hormones in serum. These values are then compared to a reference interval derived from tests done on samples taken from groups of normal dogs, generally without regard to breed. In some breeds (Greyhound, for instance), normal, healthy dogs have thyroid hormone concentrations that do not 'fit' with the general thyroid hormone reference intervals. This may result in dogs being incorrectly classified as hypothyroid, and perhaps inappropriately put on thyroid medication and/or removed from breeding programs. Dr. Davies' study will determine breed-specific reference intervals for thyroid hormones using serum from purebred dogs that have been clinically screened to affirm their healthy status. Data from this study will then be available for comparison when dogs from these breeds need thyroid diagnostics as part of their health care. Data will also be compared to that found in the other breeds to determine if significant differences in thyroid hormone reference intervals exist among breeds.

So how can you get involved? Consider helping to supply the **blood** (and urine) samples needed. Enroll your dog in this study. Dr. Davies needs healthy dogs from these breeds between 1 and 8 years of age. Dogs can be on heartworm and flea and tick medication but cannot be on other drugs. Dogs must be off any drug therapy (eye or ear drops, antibiotics, steroids etc) for at least 12 weeks prior to enrolling in the study. Dogs with chronic health concerns should not be enrolled. Dogs previously diagnosed with thyroid problems or that show signs of thyroid problems (obesity, lethargy, poor hair coat, and infertility) are not eligible to participate. Please do not enroll animals that you suspect may have 'thyroid issues'. *The appropriate dogs are those that you are most convinced are healthy, fit, and robust animals.* In order to participate dogs must be:

- Between 1 and 8 years of age
- Healthy (no medications or signs of illness)
- AKC registered, or provide evidence of pure-bred status
- Females should not be pregnant or in season
- Animals must be fasted for at least 6 hours prior to sampling

Now, for the **sweat** part of this opportunity! In order to participate outside of the Minnesota metro area (free sampling clinics are available at the University of Minnesota for local dog owners) owners must arrange with their veterinarian for proper sample

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collection and physical exam of their dog. A limited number of enrollees will be accepted (up to 100 dogs are needed for each breed). If your veterinarian donates his or her time to help you participate in this study (**Cheers!**), please let Dr. Davies know. At the end of the study, all participating veterinarians that donated their services will receive a letter of thanks and a summary of the results when available.

Participating dogs will undergo a physical examination and your veterinarian will need to collect urine and blood (for a complete blood count (CBC), blood chemistry profile, urinalysis, and thyroid levels) samples for the study. Dog owners must pay the fees (**Sweat**) associated with the physical exam and sample collection procedures. Dr. Davies will pay for shipping the samples collected by your veterinarian to her laboratory for analysis. Dogs will be screened for healthy attributes using the results of the physical exam and the initial blood tests (CBC, chemistry profile, and urinalysis). If data are consistent with a healthy status, the thyroid panel (T4, Free T4 by dialysis, TgAA and TSH) of tests will be determined. Results of all tests which are run (screening only, or screening + thyroid tests) will be reported to the owner (**Cheers!**). The University of Minnesota Endocrine Lab, directed by Dr. Davies, is an OFA approved laboratory. Therefore, owners may also choose to have the thyroid levels done and reported to OFA. OFA has graciously waived the thyroid registration fee (**Cheers!**). If the dog is not passed into the thyroid testing part of the study (due to abnormalities found during the initial screening), the owner may request having the thyroid levels run at the owner’s expense. Volunteers will receive comprehensive laboratory data at no charge to the owner. More importantly, you will have the pride in knowing that you have participated in an opportunity to improve the health management of your favorite breed (**Cheers!**).

**To participate:**

1. **Please contact Dr. Davies (rdavies@umn.edu or 612-626-0168) and request a “Blood, Sweat and Cheers” packet** in order to participate in the AKC/CHF/OFA University of Minnesota Thyroid Project. The packet will contain:
  - a. A health questionnaire that needs to be completely filled out and returned with the blood and urine samples.
  - b. b. A client consent form which needs to be signed and returned with the study samples.
  - c. c. A letter to your veterinarian which describes the study and requirements for the physical exam and sample collections.
  - d. d. A frequently asked question form to provide additional information.

*Please include the breed, sex, date of birth of your dog and your complete contact details in your initial email. The names, address, phone number and email address of your veterinarian is also required.*

2. **Discuss the study and requirements with your veterinarian and schedule an appointment for a Monday, Tuesday or Wednesday** (to allow for over-night delivery to Minnesota laboratories prior to Friday). Once the appointment is made, notify Dr. Davies (rdavies@umn.edu or 612-626-0168) so that she can

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officially enroll your dog into the study. Dr. Davies will need to discuss the collection with your veterinarian by email prior to final enrollment and sample submission. Sample collection and shipping timing are critical to sample acceptance so it is important to have all three parties (owner, veterinarian and Dr. Davies) in communication regarding dog enrollment.

*Samples that are received without going through the enrollment procedure cannot be analyzed.*

This project is supported by the American Kennel Club Canine Health Foundation, the Collie Foundation and the Orthopedic Foundation for Animals.