



UNIVERSITY OF MINNESOTA

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Genetic Basis of Immune-Mediated Hemolytic Anemia in Dogs

Purpose of study

Immune-mediated hemolytic anemia (IMHA) is common disorder in which the immune system attacks red blood cells and destroys them. This disease also predisposes dogs to forming blood clots, which may become lodged in their lungs or brain (or elsewhere). The purpose of this study is to determine the genetic cause(s) of this disease in dogs.

Who is performing this study?

This study is being performed at the University of Minnesota College of Veterinary Medicine. The principal investigator is Dr. Steven Friedenber, a faculty member in the Department of Veterinary Clinical Sciences. Dr. Friedenber is a board-certified critical care veterinarian who holds a PhD in genetics. He has a special interest in autoimmune diseases.

Summary of procedures to be performed on your dog

If you consent to participation in this study, a veterinarian or veterinary technician will take a small blood sample from your dog (4-6 mL, about 1 teaspoonful) and deliver it to the Canine Genetics Laboratory at the University of Minnesota so that we can evaluate his/her genetic makeup. If your dog has been recently diagnosed with IMHA and has not yet received treatment, we may also use a portion of this blood to evaluate which genes are activated by the disease.

We will also collect information regarding your dog's prior medical history so that we can confirm that he or she has or had IMHA. By signing this consent form, you are allowing us to have access to this information, along with other pertinent information in your pet's health record for our use in our study. All information will be treated confidentially.

There is no cost for participation in this study – the study investigators will defray the costs of shipping and testing.

The information obtained in this study may not benefit your pet, but will provide veterinarians with valuable information and knowledge about autoimmune diseases in dogs. The results of this study may be published in a scientific journal or be presented at a conference, but neither your pet nor your family will be identified in any way. Your participation in this study is entirely voluntary and your refusal to participate will not affect your pet's care in any way. You may withdraw from the study at any time.

Risks

The risks associated with this study are minimal. Your dog may experience momentary pain during blood collection. Additionally, some dogs may develop a small amount of swelling or bruising at the site where the blood is drawn. Your veterinarian will place a bandage over the site of the blood draw to minimize the likelihood of this occurring. However, if a small bruise does develop, it should resolve on its own within a few days.

Given the minimal risks associated with this study, no compensation will be provided should any adverse events occur.

(continued on reverse)

Owner consent

I have been given the opportunity to ask questions and to have them answered to my satisfaction. I am welcome to contact the principal investigator by telephone or e-mail if I have any questions regarding this study. Dr. Friedenbergr may be reached at fried255@umn.edu or 612-626-8387. You may also contact the University of Minnesota Institutional Animal Care and Use Committee should you have any questions or concerns at 612-626-2126.

Patient information

Dog's Name:	Date of Birth:	Breed:
Color:	Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female	Pedigree Enclosed? <input type="checkbox"/> Yes <input type="checkbox"/> No
AKC Registration (if known):	Registered Name (if known):	

Client Information

First Name:	Last Name:		
Address:	City:	State:	Zip/Postal Code:
Phone number:	E-mail address:		
Owner Signature:			Date:

Investigator Signature

Signature:	Date:
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Information for veterinarians

Your client has agreed to participate in a study we are conducting evaluating the genetic basis of IMHA. For more information regarding study inclusion and exclusion criteria, please visit our study website at <http://z.umn.edu/imha>

Please contact Dr. Friedenbergr prior to submitting any samples so that we can verify that the dog meets the inclusion criteria for the study, and so that we can provide you with a prepaid shipping label to send us the sample at our expense.

Please be sure to enclose the following:

1. Blood drawn into a standard EDTA tube (purple top) with a volume of 4-6 mL (multiple tubes are fine)
2. A copy of the laboratory results (from IDEXX, Antech, or other diagnostic laboratory) and medical records confirming the diagnosis of IMHA
3. A copy of the patient's pedigree, if provided to you by the owner
4. This consent form

Blood tubes do not need to be refrigerated or shipped with ice packs. Please try to submit the sample within a day or two of the blood draw. If the sample is drawn on Friday or over the weekend, please refrigerate the sample until you can send it to us on Monday.

Please label the tube carefully with the dog's first and last name, and fill out the information below regarding your clinic.

Questions? Contact Dr. Steven Friedenbergr at fried255@umn.edu or 612-626-8387. Thank you very much for your assistance!

Shipping information

Canine Genetics Lab
University of Minnesota
1988 Fitch Ave
295 AS/VM
Saint Paul, MN 55108

Veterinarian information

First Name:	Last Name:
Veterinary Clinic:	
Clinic phone number:	Clinic e-mail address:

Enclosed

- Blood sample
- Copy of diagnostic testing for IMHA
- Pedigree
- Consent form