

**Epilepsy Disease Study**  
**Canine Genetic Analysis Project (CGAP)**  
Department of Animal Science, University of California, Davis  
Principal Investigators: Dr. A.M. Oberbauer and Dr. T.R. Famula  
Phone: 530-752-1046, FAX: 530-752-0175  
<http://cgap.ucdavis.edu/>

**Dog/Owner Information** *(Please include a pedigree)*

Dog's Registered Name: \_\_\_\_\_

Call Name: \_\_\_\_\_ AKC Registration #: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Coat Color: \_\_\_\_\_ Sex (circle): M / F Intact / Spayed / Neutered Date of spay/neuter: \_\_\_\_\_

Breed (circle one):    Belgian Sheepdog    Belgian Tervuren    Giant Schnauzer    English Mastiff  
   Miniature Poodle    Standard Poodle    Toy Poodle

Sire's Name: \_\_\_\_\_ AKC Registration #: \_\_\_\_\_

Dam's Name: \_\_\_\_\_ AKC Registration #: \_\_\_\_\_

Was this dog produced by (circle):    Natural breeding/fresh semen    Chilled AI    Frozen AI    Not sure

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Owner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

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**Health Information:**

Healthy (circle):    **YES**    **NO**

General comments regarding your dog's health (allergies, arthritis, autoimmune condition, infections, etc.):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Has your dog ever had a seizure? (check)

**YES - once**

**YES - more than one seizure**

**NO - never** (continue to the bottom of page 5 to section on relatives)

Age at first seizure: \_\_\_\_\_ years \_\_\_\_\_ months

If your dog is spayed or neutered, were seizures diagnosed (circle) **prior to** or **after** spay or neuter?

Has a veterinarian diagnosed seizures/epilepsy in your dog? (circle)    **YES**    **NO**

Please list all veterinarians who have seen your dog for seizure-related issues.

<b>Veterinarian Name</b>	<b>Phone Number</b>	<b>Date</b>

Please identify any tests that have been run on your dog to help diagnose/treat your dog's seizures, and describe any abnormal or unusual findings. Include copies of medical records pertinent to diagnosis and blood test results at the time of diagnosis. Your veterinarian can fax the information to the Oberbauer Lab, Department of Animal Science 530-752-0175.

<b>Test</b>	<b>Date</b>	<b>Describe findings</b>
<b>Blood test (CBC)</b>		
<b>EEG (electro-encephalogram)</b>		
<b>CSF testing (cerebrospinal fluid)</b>		
<b>CT (computerized tomography)</b>		
<b>MRI (magnetic resonance imaging)</b>		
<b>Thyroid function</b>		
<b>Liver function</b>		
<b>Other (describe)</b>		

Seizures are (check all that apply):

- Partial or Focal** (typically localized to one side of the body, usually remains conscious)
- Cluster** (multiple seizures within a short time period with interspersed periods of consciousness)
- Generalized** (involves entire body, may lose consciousness, may stop breathing)

**Types of generalized (check if known):**

- Tonic-Clonic** (Grand Mal – uncontrollable muscle activity/paddling, collapse, salivation, urination/defecation)
- Tonic** (abrupt non-vibratory muscle contractions; legs flex and relax)
- Atonic** (brief attack with rapid recovery)
- Clonic** (usually rare and associated with elevated temperatures)
- Myoclonic** (brief muscle jerks often triggered by startling sights or sounds)
- Absence** (Petit mal – brief with shaking/tilting of head, staring/gazing, licking lips, eyes roll upward)
- Not Sure**

Frequency of seizures (give number):

- \_\_\_\_\_ **times a day**
- \_\_\_\_\_ **times a week**
- \_\_\_\_\_ **times a month**
- \_\_\_\_\_ **times a year**

In general, how long does a seizure last? (check)

- Less than a minute**
- One minute to five minutes**
- Five minutes to ten minutes**
- Longer than ten minutes**
- Not Sure**

Do seizures occur at any particular time of day? (check all that apply)

- midnight - 6 am**
- 6am - noon**
- noon - 6 pm**
- 6 pm - midnight**
- no particular time**

When does your dog have seizures? (check all that apply)

- While resting**
- While sleeping**
- While awake during normal activity**
- While playing**
- When exercising**
- During physically stressful activities**
- Following physical stressful activities**
- During mentally stressful activities**
- When dog is left alone**
- With sexual activity**
- With weather changes**
- Certain season of the year (describe): \_\_\_\_\_**
- Before eating**
- After eating**
- After not eating for a long period of time**
- When ill**
- When highly aroused (aggression, etc.)**
- No predisposing factors (usually seem completely random)**
- Other (describe): \_\_\_\_\_**

Prior to a seizure, does your dog (check all that apply):

- Appear nauseous**
- Vomit**
- Show salivation/drooling**
- Get restless**
- Seek out owner contact**
- Become aggressive**
- Nothing in particular**
- Other (please describe) \_\_\_\_\_**

Please select any of the following that apply to your dog during a seizure:

- |   |   |
|---|---|
| <input type="checkbox"/> Breathing stops briefly                                  | <input type="checkbox"/> Following imaginary objects (such as fly snapping) |
| <input type="checkbox"/> Loss of consciousness                                    | <input type="checkbox"/> Trembling  |
| <input type="checkbox"/> Conscious, but loss of awareness of surroundings         | <input type="checkbox"/> Head tremor  |
| <input type="checkbox"/> No response to commands                                  | <input type="checkbox"/> Twisting head                                      |
| <input type="checkbox"/> Stiffening of neck and limbs                             | <input type="checkbox"/> Twisting facial muscles                            |
| <input type="checkbox"/> Sitting or falling to the ground (lose limb muscle tone) | <input type="checkbox"/> Drooling   |
| <input type="checkbox"/> Lack of coordination                                     | <input type="checkbox"/> Chewing or lip smacking                            |
| <input type="checkbox"/> Jerking motion of single/multiple limbs                  | <input type="checkbox"/> Opening and closing mouth                          |
| <input type="checkbox"/> Rhythmic contraction or flexion of single limb           | <input type="checkbox"/> Does not recognize owner                           |
| <input type="checkbox"/> One part/side of body behaves differently from the rest  | <input type="checkbox"/> Trying to get near people                          |
| <input type="checkbox"/> Generalized convulsions                                  | <input type="checkbox"/> Pressing head against object/person                |
| <input type="checkbox"/> Change in posture  | <input type="checkbox"/> Fear   |
| <input type="checkbox"/> Restlessness   | <input type="checkbox"/> Aggressiveness                                     |
| <input type="checkbox"/> Chasing tail   | <input type="checkbox"/> Anxiety  |
| <input type="checkbox"/> Moving in circles  | <input type="checkbox"/> Confusion  |
| <input type="checkbox"/> Temporary loss of vision                                 | <input type="checkbox"/> Unmotivated barking                                |
| <input type="checkbox"/> Repetitive blinking                                      | <input type="checkbox"/> Urination  |
| <input type="checkbox"/> Staring  | <input type="checkbox"/> Defecation   |
|   | <input type="checkbox"/> Other (describe): _____                            |

Please select any of the following that apply to your dog immediately after a seizure:

- Fatigue
- Aimless wandering
- Aggression
- Thirsty/drinking water
- Hungry
- If inside, asks to go outside
- Reluctance to get up
- Vomiting
- Retching
- Responds if you call his/her name
- Responds to commands
- Other (describe): \_\_\_\_\_

How long does your dog take to return to normal after a seizure?

- Less than 5 minutes
- 5-30 minutes
- 30-60 minutes
- 1-2 hours
- > 2 hours
- Behaves normally right after the seizure

List any prescribed medications your dog currently takes for seizures (check all that apply):

- Clonazepam
- Diazepam (Valium®)
- Felbamate
- Gabapentin
- Levetiracetam (Keppra®)
- Neurontin
- Phenobarbital
- Potassium Bromide (KBr)
- Primidone
- Zonisamide
- Other (describe): \_\_\_\_\_

How effective is the medication(s) in controlling the seizures? (check all that apply)

- Stopped seizures completely
- Reduced number of seizures by half
- Reduced number of seizures by a little
- Reduced intensity of seizures
- Reduced duration of seizures
- No effect
- Other (describe): \_\_\_\_\_

Does your dog undergo other types of treatment for seizures (e.g., acupuncture, herbal supplements, any other complementary alternative medicine (CAM))?

Please describe: \_\_\_\_\_

Has your dog ever had any type of head trauma? (circle) **YES** **NO**

Please describe: \_\_\_\_\_

Did seizures start **before** or **after** head trauma? (circle)

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Circle any relative(s) of your dog who also have seizures:

**Sibling** **Half-Sibling** **Sire** **Dam** **Grandparent** **Offspring** **Aunt/Uncle** **Niece/Nephew** **Don't know**

Please indicate registered name of relative(s) if known: \_\_\_\_\_

Has your dog had any type of infection or autoimmune disease? (circle) **YES** **NO**

Please describe: \_\_\_\_\_

- Age at infection or autoimmune disease: \_\_\_\_ years \_\_\_\_ months
- What specific test was used to determine the condition:  
\_\_\_\_\_

Owner Signature: \_\_\_\_\_ Date: \_\_\_\_\_

For blood sample submissions only, check here if you agree to donate the excess DNA not used directly in this study to the CHIC DNA repository. If so, download and complete the CHIC DNA forms [http://www.caninehealthinfo.org/chic\\_dnabankapp\\_main.pdf](http://www.caninehealthinfo.org/chic_dnabankapp_main.pdf) Send the CHIC DNA repository application and the health survey along with the CGAP questionnaire and the pedigree with this sample. Note there is no fee associated with CHIC submission when the excess DNA is submitted through CGAP.

**Genetic Basis for Canine Diseases  
Canine Genetic Analysis Project (CGAP)**

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**OWNER CONSENT FORM**

**PURPOSE OF STUDY**

I hereby grant permission for my dog to participate in a study designed to collect DNA from dogs and their relatives to study various diseases including, but not limited to Addison's disease and Epilepsy, in order to determine the genetic basis for these diseases. This protocol has been approved by the UC Davis Institutional Animal Care and Use Committee (IACUC), Protocol #18739.

**CONSENT FOR PROCEDURE**

I consent to the use of blood samples for this project, and appropriate future projects, and I will provide a pedigree with the sample, provided that neither my animal nor I will be identified in any publications, reports, or presentations.

**RISKS ASSOCIATED WITH PROCEDURE**

The risk involved in drawing blood is minimal. However, I do understand that my dog may experience mild redness or bruising at the collection site. Additionally, the veterinarian I have chosen to do this procedure may clip the hair to facilitate visualization of the vein. The veterinarian who will be performing this procedure is the veterinarian of my choice, and I will not hold the University of California Davis responsible for any complications associated with drawing the blood.

**POTENTIAL BENEFITS**

I understand that there is no guarantee that my dog will benefit from its participation in this study. However, such participation may provide veterinarians and researchers with additional information and a better understanding of canine diseases, which could ultimately influence the course of treatment or genetic testing to help my dog and other animals in the future.

**COSTS TO OWNER**

There is no fee for participating in this study. In the event that DNA from my dog is used in the development of commercially available diagnostic markers, I understand and agree that any proceeds or benefits from such development are the sole and exclusive property of University of California, Davis. I also understand that the University of California will not cover any charges that may be incurred for the drawing of blood or shipment of samples. If this dog's sample is directly used in the development of a genetic test associated with this disorder, upon the owner's written request after the test becomes commercially available, the results of the test for this dog will be provided to the owner at no cost.

**CONFIDENTIALITY**

I understand that any information about my dog, obtained from this study, will be kept confidential.

**AUTHORIZATION**

I hereby donate, assign, and transfer a DNA sample from my dog to CGAP for research purposes and warrant my authority to do so. I understand that any future use or distribution of this DNA sample will be within the sole direction and authority of CGAP. I further understand that any distribution of samples to researchers will be in a blind format that maintains the anonymity of the dog and owner identities. My intent in providing this DNA sample is to further research into canine health issues. I hereby relinquish all rights to, and ownership of the DNA sample. I have read and understand the foregoing statements and agree to allow my dog to participate in this study. To the best of my knowledge, the information I have supplied is true and accurate.

\_\_\_\_\_  
Owner Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner Printed Name

\_\_\_\_\_  
Date of Blood/Buccal Collection

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**Canine Buccal Swab Submission (swab kit request at <http://cgap.ucdavis.edu/>)**

(Please use all 3 brushes for each dog being submitted)

1. If the dog has been eating or drinking, wait 10-15 minutes before taking samples.
2. Sample one dog at a time. If you are sampling several dogs in the same session, complete the process for one dog before sampling the next dog.
3. Before opening or collecting sample, label each wrapper of the 3 brushes with **the name of the dog** to be sampled and **the date of collection**.
4. Peel open the top of the wrapper and remove the brush by its handle.
5. Place the bristle head against the inside of the dog's cheek and swirl 10 times. Please be vigorous, since these are the only samples we will have for the dogs. Please take each sample from a **different location** on the cheek.
6. **Allow swabs to air dry for 5 minutes.** Carefully return each swab to its original wrapper.
7. Fold over the end of the wrapper and seal with a paperclip or staple (do not use tape). **Do not** place samples in a Ziploc<sup>®</sup> bag.
8. If you are sending only swab samples, return samples and appropriate forms via regular mail in the enclosed self-addressed, postage paid envelope (U.S. residents only).

**Blood Sample Collection and Shipping Procedures (Preferred Sample Submission)**

1. Please collect 2cc to 5cc of whole blood in a single purple-top (EDTA) tube. Rock the tube gently (do not centrifuge).
2. Label each sample with the dog's registered name, owner's last name and date. Wrap tubes in paper towels and place the blood tubes in a plastic bag, sealing the bag securely.
3. Place the samples in a sturdy box, packed so that the blood tubes do not move around (bubble wrap).
4. Include the completed questionnaire, pedigree and signed owner consent form.
5. The ideal shipping method is to keep the samples cold (ice pack) in an insulated, leak-proof container and ship via FedEx or UPS immediately following collection to arrive within 2 days of collection. Refrigerate the sample until it can be shipped. **DO NOT freeze the sample at any time. For USPS, please send samples on ice packs priority 1-2 day service. Samples shipped via USPS are only delivered Monday, Wednesday and Friday mornings. Samples from other couriers can be delivered weekdays (Monday – Friday). Campus is closed on weekends and holidays. Samples may be compromised if they are shipped on a Friday to arrive on a Monday due to inadequate storage at courier facilities. Shipping containers cannot be returned.** For international submissions, please check with your local courier for requirements and/or restrictions on sending biological samples and include CGAP's Declaration of Material Shipped Form with the samples.
6. For FedEx or UPS shipments, please email [jmbelanger@ucdavis.edu](mailto:jmbelanger@ucdavis.edu) with date of shipment and tracking #.

**Please write "Refrigerate Upon Arrival" on the outside of the box and ship to:**

Oberbauer Lab  
Canine Genetic Analysis Project  
Department of Animal Science  
University of California  
2251 Meyer Hall  
One Shields Avenue  
Davis, CA 95616-8521  
Phone: 530-752-1046

**UC Davis Campus Holidays/Closures:** Note that campus receives USPS mail on Monday, Wednesday and Friday mornings only.  
2017 January 2, January 16, February 20, March 31, May 29, July 4, September 4, November 10, November 23-24, December 22, 25, 29  
2018 January 1, January 15, February 19, March 30, May 28, July 4, September 3, November 12, November 22-23, December 24-25, 31  
2019 January 1, January 21, February 18, March 29, May 27, July 4, September 2, November 11, November 28-29, December 24-25, 31



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**UNIVERSITY OF CALIFORNIA, DAVIS**  
DEPARTMENT OF ANIMAL SCIENCE  
ONE SHIELDS AVENUE  
DAVIS, CALIFORNIA 95616-8521  
(530) 752-1250 (Animal Science)  
(530) 752-0175 (Fax)  
**Canine Genetic Analysis Project (CGAP)**

**Declaration of Material Shipped for  
International Submissions Only**

To comply with United States Federal Guidelines for the importation of research samples from dogs, please complete the form below and include with the samples upon return. Thank You.

Shipper's Name (print): \_\_\_\_\_

Sample Type (circle):    Buccal Swab        Blood

Species: Canine

I declare that the enclosed sample(s) contain only material derived from dogs and does not contain any other animal derived material (i.e., nothing from livestock or poultry), nor were the dog(s) sampled exposed or inoculated to any infectious agents of agricultural concern.

Signature of Shipper: \_\_\_\_\_

Date: \_\_\_\_\_