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 Information (Please include a pedigree)

Dog’s Registered Name:________________________________________

Call Name:_________________ AKC Registration #:______________________ Date of Birth:___________________

Coat Color: ______________ Sex: ☐ F ☐ M Spayed/Neutered: ☐ Yes ☐ No Date of spay/neuter: ___________

Breed (check one): ☐ Belgian Sheepdog ☐ Belgian Tervuren ☐ Giant Schnauzer
☐ English Mastiff ☐ Miniature Poodle ☐ Toy Poodle

Sire's Name:_________________ AKC Registration #: _________________

Dam's Name: _____________________ AKC Registration #: ______________

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

Owner Information

Owner's Name:___________________________________________________________________________________

Address:________________________________________________________________________________________

City: ___________________________________ State: _____________________ Zip Code: ________________

Phone:_____________________________________ E-mail: ______________________________________________

Health Information:

Healthy: ☐ YES ☐ NO
General comments regarding your dog’s health (allergies, arthritis, infections, surgeries, etc.):
________________________________________________________________________________________________

Is your dog taking any long term (>6 months) medications or supplements? ☐ YES ☐ NO
If yes, please indicate medications or supplements, dose and reason for taking. For example, Thyro-Tabs®/0.2mg
daily/hypothyroidism, Cosequin®/1 tablet daily/arthritis.
_______________________________________________________________________________________________

Has your dog been vaccinated for rabies? ☐ YES ☐ NO
At what interval is the rabies vaccine given?
☐ Every year ☐ Every 3 years ☐ Never ☐ The rabies vaccine is not available where I live

☐ Other (explain): __________________________
Epilepsy Disease Information:

Has your dog ever had a seizure?
☐ YES - once
☐ YES - more than one seizure
☐ NO - never (continue to page 5)

Age at first seizure: _____ years _____ months  Date of last seizure before sample was taken: ______________

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

Has a veterinarian diagnosed seizures/epilepsy in your dog?  ☐ YES  ☐ NO

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

<table>
<thead>
<tr>
<th>Veterinarian Name</th>
<th>Phone Number</th>
<th>Date</th>
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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.

<table>
<thead>
<tr>
<th>Test</th>
<th>Date</th>
<th>Describe findings</th>
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<tbody>
<tr>
<td>Blood test (CBC)</td>
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<tr>
<td>EEG (electroencephalogram)</td>
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<td>CSF testing (cerebrospinal fluid)</td>
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<td>CT (computerized tomography)</td>
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<td>MRI (magnetic resonance imaging)</td>
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<td>Thyroid function</td>
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<td>Liver function</td>
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<tr>
<td>Other (describe)</td>
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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 a 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  ☐ Longer than ten minutes
☐ One minute to five minutes  ☐ Not Sure
☐ Five minutes to ten minutes

Do seizures occur at any particular time of day? (check all that apply)
☐ midnight - 6 am  ☐ 6 pm - midnight
☐ 6 am - noon  ☐ no particular time
☐ noon - 6 pm

When does your dog have seizures? (check all that apply)
☐ While resting  ☐ With sexual activity
☐ While sleeping  ☐ With weather changes
☐ While awake during normal activity  ☐ Certain season of the year (describe): ________________________
☐ While playing  ☐ Before eating
☐ When exercising  ☐ After eating
☐ During physically stressful activities  ☐ After not eating for a long period of time
☐ Following physical stressful activities  ☐ When ill
☐ During mentally stressful activities  ☐ When highly aroused (aggression, etc.)
☐ When dog is left alone  ☐ No predisposing factors (seems completely random)
☐ Other (describe): ____________________________

Prior to a seizure, does your dog (check all that apply):
☐ Appear nauseous  ☐ Seek out owner contact
☐ Vomit  ☐ Become aggressive
☐ Show salivation/drooling  ☐ Nothing in particular
☐ Get restless
☐ Other (describe): ____________________________

Please select any of the following that apply to your dog during a seizure (check all that apply):
☐ Breathing stops briefly  ☐ Following imaginary objects (fly snapping)
☐ Loss of consciousness  ☐ Trembling
☐ Conscious, but loss of awareness of surroundings  ☐ Head tremor
☐ No response to commands  ☐ Twisting head
☐ Stiffening of neck and limbs  ☐ Twisting facial muscles
☐ Sitting or falling to the ground (lose limb muscle tone)  ☐ Drooling
☐ Lack of coordination  ☐ Chewing or lip smacking
☐ Jerking motion of single/multiple limbs  ☐ Opening and closing mouth
☐ Rhythmic contraction or flexion of single limb  ☐ Does not recognize owner
☐ One part/side of body behaves differently from the rest  ☐ Trying to get near people
☐ Generalized convulsions  ☐ Pressing head against object/person
☐ Change in posture  ☐ Fear
☐ Restlessness  ☐ Aggressiveness
☐ Chasing tail  ☐ Anxiety
☐ Moving in circles  ☐ Confusion
☐ Temporary loss of vision  ☐ Unmotivated barking
☐ Repetitive blinking  ☐ Urination
☐ Staring  ☐ Defecation
☐ Other (describe): ____________________________
Please select any of the following that apply to your dog immediately after a seizure (check all that apply):

- Fatigue
- Aimless wandering
- Aggression
- 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?  □ YES  □ NO

Please describe: ____________________________

Did seizures start □ before or □ after head trauma? (check)
Has your dog been diagnosed with any other conditions listed below? (check all that apply)

☐ Addison’s Disease
☐ AIHA (autoimmune hemolytic anemia)
☐ Atopy
☐ Cancer (type): ________________________
☐ Hypothyroidism
☐ IBD (inflammatory bowel disease)
☐ ITP (idiopathic thrombocytopenia)
☐ SLE (systemic lupus erythematosus)
☐ SLO (symmetrical lupoid onychodystrophy)
☐ Other (describe): ________________________
☐ None

• Age at diagnosis of the condition: _____ years _____ months
• What specific test was used to determine the diagnosis for the above condition(s):

________________________________________________________________________________________

Relatives:
Check any relative(s) of your dog who 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: ______________________________________

Genotype Data

If your dog has genotype data in the form of a zip file (tfam/tped files) and you would be willing to send the data to our study, please email the file to imbelanger@ucdavis.edu Please include dog’s name, owner name and data id for each data file submission.

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 form https://www.ofa.org/wp-content/uploads/2017/10/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.
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 #22099.

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
Canine Genetic Analysis Project (CGAP)  
Department of Animal Science, University of California, Davis  
Principal Investigators: Dr. A.M. Oberbauer and Dr. T.R. Famula  
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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® 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 2 purple-top (EDTA) tubes with 2cc (2ml) in each tube. Rock the tubes 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 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  
450 Borelli Way  
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.  
2023 January 2, January 16, February 20, March 31, May 29, June 19, July 4, September 4, November 10, November 23-24, December 25-26  
2024 January 1-2, January 15, February 19, March 29, May 27, June 19, July 4, September 2, November 11, November 28-29, December 24-25, 31  
2025 January 1, January 20, February 17, March 28, May 26, June 19, July 4, September 1, November 11, November 27-28, December 24-25, 31
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 (check):  □ 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: _________________