



### **Instructions for submitting canine samples for genetic research**

- Complete and sign the consent form and health survey for each dog for which a sample will be submitted.
- If available, attach a 3-generation pedigree for the dog. This may be a copy of an official pedigree, a printing from a website, or a handwritten pedigree.

#### **Blood Samples**

- Have 5-10mL of whole blood drawn into an EDTA tube(s). These are the lavender-topped tubes in the USA, but may be different colors in other countries. If your dog is very small in size, 1-3mL of blood can be submitted.
- Gently invert the tube a few times to ensure mixing with the anticoagulant.
- Label the tube with:
  - o Dog's name
  - o Breed
  - o Owner's name
- Tubes may be refrigerated if it will be more than a day before shipping. Do not freeze.

#### **Saliva/Buccal Samples**

- If possible, you will collect 2 swabs from each dog for which a sample is being submitted.
- Remove the cheek swab brush from the paper wrapping. Be sure not to touch the bristle end and do not let the bristle end touch other surfaces.
- Insert the bristle end into the cheek pouch of the dog. This is the inner surface of the mouth, between the upper teeth and the cheek. Gently, but firmly, rub/rotate the brush against the inner surface of the cheek for approximately 10 seconds. This will collect cheek skin cells; you are not scrubbing the teeth, nor should you expect to see any blood.
  - o For video example, see [https://www.youtube.com/watch?v=ZiBEM\\_0Qq3I](https://www.youtube.com/watch?v=ZiBEM_0Qq3I)
- Remove the brush from the dog's mouth, balancing it on the edge of a table (or similar) to allow it to air dry.
- Once the brush appears dry (approximately 10 minutes), insert it back into the paper wrapping. Do not seal tightly or put in plastic bag.
- Label the packaging with:
  - o Dog's name
  - o Breed
  - o Owner's name

#### **Tissue Samples**

- These may be collected if the dog is undergoing elective surgery for the removal of tissue, including removal of dewclaws, tail docking, or spay/neuter. Likewise, if a dog dies, tissue collected immediately after death can yield genetic material for research purposes.

- Please contact us directly for specific instructions; tissue handling varies according to tissue type and downstream application.
- If using RNAlater solution, immediately after excision, place the tissue (up to ¼” in thickness) into the provided tubes of RNAlater solution. If the tissue sample is thicker than ¼”, cut into smaller pieces before submerging.
  - o Ensure that the entire piece of tissue is fully submerged in the RNAlater solution.
  - o Label the tube with:
    - Dog’s name
    - Breed
    - Tissue source
    - Owner’s name
  - o Leave at room temperature for a minimum of 24 hours to ensure permeation of the tissue by the preservation liquid. After 24 hours, samples may be left at room temperature or frozen prior to shipping.

### Shipping

Canine blood, saliva swabs, and tissues can be shipped via US Mail or courier, provided they are packaged appropriately.

- Saliva swabs can be packaged in regular or padded envelopes.
- Blood or tissue tubes should be individually wrapped with absorbent material (paper towel, Kimwipes, tissue paper, etc.), and sealed in plastic bags (eg. zip-top sandwich bags) or hard plastic containers (eg. pill bottle, syringe casing). These samples can then be packed in a small box suitable for shipping.
  - o Genetic samples do NOT need ice packs or insulated containers.
- Ship the sample so that it arrives at its destination within 2-7 days. This may be done through the US Postal Service, or a courier of your choice (FedEx, UPS, etc.). Overnight shipping is NOT required. You will not be reimbursed for postage or shipping fees.
- Send samples and all forms to:

Purdue Canine Genetics Lab  
 c/o Kari Ekenstedt  
 Department of Basic Medical Science  
 College of Veterinary Medicine  
 Purdue University  
 625 Harrison Street, Lynn Hall  
 West Lafayette, IN 47907

If you are shipping your blood or tissue sample from outside the USA:

- Print, complete, and sign **THREE (3)** copies of the provided customs form.
- Fold these forms together and place into a plastic zip-top bag.
- Tape the bag to the outside of the package.
- Cheek swabs generally do not require customs forms.

Questions about sample submission can be directed to [kje0003@purdue.edu](mailto:kje0003@purdue.edu)



**Canine Genetic Research Laboratory of Dr. Kari Ekenstedt**

**General Consent for Participation in Canine Genetic Research**

**Purpose:** Our goal is to collect DNA and health information from dogs of a variety of breeds and mixes for use in genetic research of multiple canine medical and morphological characteristics. DNA will be obtained from either blood or cheek cells. The extracted DNA will then be compared to samples from other dogs of appropriate case or control status, screened for patterns of inheritance of targeted traits, and may lead to identification of genetic variants associated with cause or increased risk of disease or trait inheritance. This study design requires participation from healthy and affected animals. By signing this form, you indicate that you are the owner of the dog described below, that you recognize you are submitting this sample for the purpose of DNA research, and that participation is voluntary.

**The type of collection being obtained is: (please select all that apply)**

**Blood Collection:** Approximately 3-10ml of blood will be collected by a licensed veterinarian or veterinary technician by venipuncture using standard methods and physical restraint. Inherent risks are minimal and include slight pain or discomfort during the draw, a potential temporary bruise caused by minor seeping of blood around the puncture and a small amount of blood loss. The chance of excessive blood loss is rare.

**Cheek Cell Collection:** Cells and saliva will be collected from the inner surface of the dog's cheek with 2 soft-bristled specimen brushes. Inherent risks are minimal and include slight discomfort during collection. Your dog may experience difficulties if it swallows, or attempts to swallow, all or part of the collection brush.

**Liability:** Purdue University and its employees will not be liable for any damage or injury sustained by any person or persons or property as a result of the DNA collection process. No compensation is provided for participating in this study, and compensation is not available in the unlikely event of physical harm to your dog resulting from the DNA collection procedure.

**Confidentiality and Disclosure:** Only the Ekenstedt laboratory staff and their direct trusted collaborators will have access to the information provided by the dog owner and the DNA obtained. All identifying information, including pedigrees, registration numbers, and contact information, will remain strictly confidential. Should your dog's genetic information be included in public talks or published studies, it will be referred to by a unique study ID number. It is understood that you will not receive individual results regarding your dog, no unused DNA will be returned to you, and that study participants have no claim on intellectual property or patents resulting from the use of your dog's DNA sample. You also give the researchers directly involved in the study permission to contact your veterinarian(s) and to access and use information from your dog's medical record.

Any study questions should be directed to: Dr. Kari Ekenstedt (765-496-1637, kje0003@purdue.edu)

**Do you permit the staff of the Ekenstedt laboratory to contact you in the future for clarification, health follow-up, or permission to contact your veterinarian to obtain health records?** YES  NO

**Owner Name (printed):** \_\_\_\_\_

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

**Street Address:** \_\_\_\_\_ **City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

**Dog Registered Name:** \_\_\_\_\_ **Call Name:** \_\_\_\_\_ **Birth Date:** \_\_\_\_\_

**Breed:** \_\_\_\_\_ **Registration #:** \_\_\_\_\_ **Coat Color:** \_\_\_\_\_

**Sex?** MALE  FEMALE  **Spayed/Neutered?** YES  NO  **If yes, age when altered:** \_\_\_\_\_

**Has the dog been diagnosed with any disease, disorder, or medical condition? If so, what?** \_\_\_\_\_

**Primary Veterinarian:** \_\_\_\_\_ **Clinic:** \_\_\_\_\_

**Clinic Location (city, state):** \_\_\_\_\_

**If known, please provide copy of the dog's 3-generation pedigree. Extra information may be written on the back of this page.**



## Canine Health and Morphology Survey

This questionnaire is intended to accompany the DNA sample collected from your dog. Accurate classification of health status and physical characteristics ensure that your dog's genetic material is correctly assigned to case and control groups in relevant research projects. If the health status of your dog changes at any time in the future, **please contact us** to update you dog's record.

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

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

Primary Veterinarian: \_\_\_\_\_ Clinic: \_\_\_\_\_

Indicate any of the following conditions for which your dog has received a diagnosis, and their age when diagnosed.

Condition	NO	YES	Age at diagnosis	Specifics of diagnosis (e.g. disease type, location, interventions)
Diabetes				
Autoimmune Disorders				
Cancer				
Bleeding Disorders				
Arthritis				
Heart Disease				
Deafness / Hearing Impairment				
Ear Infections				
Hypothyroidism				
Eye Disease				
Hip Dysplasia				
Heart Problems				
Spinal Disc Disease				
Hernia				
Seizures				
Reproductive Disorders				
Torn Cruciate Ligament				
Skin / Coat Problems				
Dysplasia (Hip, Elbow-specify)				
Aggression				
Allergies				
Other				

**Has this dog been spayed or neutered?** (If yes, at what age was the procedure done?)

**Exercise intolerance** (If yes, when does it occur, what clinical signs are displayed, age of onset, duration and frequency?)

**Abnormal gait, lameness, stiffness** (Please describe all, including suspected or diagnosed causes.)

**Difficulty with any normal movements** (e.g., stairs, jumping on bed or couch, etc.)

**If any abnormalities, which limbs are involved:**      Front Right      Front Left      Rear Right      Rear Left

**Has this dog been diagnosed as being affected with Short-Spine syndrome, scoliosis, kyphosis, or lordosis?**

- If yes, - How was the diagnosis made?    Necropsy    MRI    CT    radiographs/x-rays    physical examination
- How old was the dog at the time of diagnosis? \_\_\_\_\_
  - Name of diagnosing veterinarian/clinic (if different than primary vet listed above): \_\_\_\_\_  
\_\_\_\_\_
  - If available, please attach or forward diagnostic records and/or images.

**List any related dogs that are/were possibly affected with spinal abnormalities. If known, include breed, registered name, and type of abnormality.**

**To your best ability, describe the litter in which your dog was born. eg. Number of pups, health or medical problems among littermates, causes of death of littermates.**

**Has your dog had any spinal surgeries?** (If yes, please indicate what surgery, where it was performed, and, if possible, include documentation.)

**Which of the following terms best describes your dog's tail?** (circle all that apply)

**How is the tail naturally carried?**

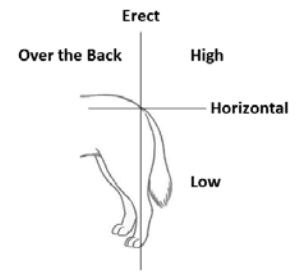
Low   Horizontal   High   Erect   Over the Back

**How is the tail naturally shaped?**

Straight   Curved   Curled   Double-Curled   Screw

**If the tail is not a "normal" length, is it:**

Docked (natural)   Docked (artificial)   Absent   Too Long



**Are there any physical characteristics about this dog that are outside of the expected description of the breed?**  
(eg. Oversized or undersized, unusual coloration, extra or missing dewclaws, underbite or overbite, ...)

**Please feel free to elaborate on your answers to the above questions, and to share any other pertinent information.**

**Thank you for your participation in our canine genetic research initiatives!**

**Our research requires participation from dedicated dog owners, breeders, and enthusiasts, like yourself. Please feel free to contact us with updates to your dog's health status or if you have any questions about our ongoing projects.**