SAMPLE HANDLING

For Canine DNA Research at the University of Missouri

Blood Sample - The ideal sample for DNA extraction is 5 to10cc's of whole blood, in **purple-topped (EDTA)** tubes (one or several, depending on tube size). For very small dogs, 3ccs should be sufficient. More volume will yield more DNA, so in this situation, a larger sample is appreciated. The blood sample needs only to be put in the tubes and rocked gently a few times to distribute the anticoagulant - do **not** spin, extract serum, or do anything further. Refrigerate if the sample is being held for any time before shipping, but do not hold the sample longer than 1 week before shipping or it may become unusable.

Frozen Semen - Frozen semen stored from deceased sires or affected dogs can be a source of DNA for testing. Please send 1 breeding unit (straws or pellets). They do not need to be shipped frozen, but do pack them in a crush-proof & leak-proof container. Special handling fee is $40 for this sample, in addition to the regular testing fee.

Tissue Sample - DNA can be extracted from any cell-rich tissue. If a dog is to be tested post-mortem, a 1" cube (or equivalent) of tongue, other muscle, spleen, kidney, or liver will provide a large amount of DNA (one tissue is sufficient – do not send multiple tissues). Tissue samples should be placed in a clearly labeled freezer bag or other sterile container and frozen. **DO NOT place in formalin!** Place the bagged tissue inside another bag, freeze, and ship with a frozen cool pack (do not use dry ice, or ice cubes placed in a ziplock bag). If this is the only sample (no blood sample available), add special handling fee of $40 to regular testing fee.

Label sample with the following:
call name - owner's last name
(If samples from several dogs are sent together, number samples and forms)

The ***Individual Dog Information Form*** that follows this instruction sheet should be completed, and a ***pedigree copy***, if available, should be included with the sample. If no pedigree information is available, please indicate this on the form. For any suspected affected dogs please complete the survey, pg 3 – this information is very important for the ongoing research. Survey page is not needed for clinically normal dogs.

Include TESTING FEE of $65. Check or money order should be payable to "University of Missouri". Credit cards (Visa, Mastercard, AmEx or Discover) can be accepted also.

Shipping - Ideally the sample should be shipped immediately (with a tissue sample make certain it is completely frozen first). If samples are held for a day or over a weekend, blood must be refrigerated, and tissue samples must be kept frozen. Ship via overnight delivery (FedEx, US Mail-Express service, or UPS). ***Do not send on a Friday*** - there will not be anyone to accept the delivery on a weekend, and the sample could be unusable by Monday. Pack in a small insulated container (most vets have these for shipping samples to labs), with one or more frozen cool packs – DO NOT use dry ice or a baggie full of ice cubes!!

The delivery address is;
Canine Genetics Lab - DEN Testing
320 Connaway Hall
University of Missouri
Columbia, MO 65211
(NOTE: if UPS does not recognize 320 Connaway as a valid address, use 201 Connaway)

If you need clarification, or have any questions about any of these procedures, please contact Liz Hansen by phone (573-884-3712), email (HansenL@missouri.edu), or regular mail (321 Connaway Hall, University of Missouri, Columbia, MO 65211).

UMC LEMP DNA TESTING & RESEARCH

Blood – Tissue – FTA-swab – semen - other _____ Breed:_____

Registered Name _____ Call name _____

Reg# _____ Birth Date _____ Male / Female - - Intact / Neutered

Microchip or Tattoo: _____ Color _____

Test Being Requested: **Leukoencephalomyelopathy (LEMP)**

Owner: name _____ Veterinarian _____

address _____ address _____

cty-st-zip _____ cty-st-zip _____

phone (day) _____ phone _____

phone (eve) _____ _____

cell _____ _____

EMAIL _____ **EMAIL** _____

****Results are reported via email – please provide complete, legible email address!!****

Report test results to *(please circle)*: Owner Veterinarian Both

Does this dog exhibit any of the following conditions? (*Please attach history for any Yes answer*)

Y - N	Allergies	Y - N	Digestive difficulties
Y - N	Arthritis	Y - N	Heart Problems
Y - N	Autoimmune Disorders	Y - N	Hernia (where? _____)
Y - N	Bite or Tooth Abnormalities	Y - N	Reproductive Problems
Y - N	Cancer / Tumors	Y - N	Seizures
Y - N	Vision Problems	Y - N	Skin / Coat Problems
Y - N	Deafness / Hearing Impaired	Y - N	Skeletal Abnormalities (Hip Dysplasia, etc.)
Y - N	Hindlimb weakness/paralysis	Y - N	Temperament Problems (shy, aggressive, etc.)

other (please list):

If this is a dog with clinical signs, please complete survey on the next page!

Comments / Questions / Concerns? _____

_____

I submit this sample and pedigree for the purpose of DNA testing; I understand that DNA left over following the test may be stored for potential future research; I understand that the results of this test will be reported only to the owner listed on this form and to the veterinarian (if requested) listed here, via email or FAX; and I have supplied complete and accurate information, to the best of my knowledge.

Signed: _____ date _____

PAYMENT INFORMATION: ☐ Check or money order payable to "University of Missouri" enclosed

OR ☐ Charge to VISA-MasterCard-Discover Card# _____

Cardholder name: _____ Exp Date: _____

***FEE:** $65; frozen semen or tissue, + $40*

Please answer the following questions about the symptoms your dog may be showing. Use additional pages as needed for descriptions.

Loss of coordination or strength: No ☐ Yes ☐ If yes, age when first noticed: _____ Months

Please describe: _____

Gait anormalites: No ☐ Yes ☐ If yes, age when first noticed_____ Months

Please describe: _____

Paw dragging: No ☐ Yes ☐ If yes, age when first noticed: _____ Months

Please describe including when seizures occur: _____

_____

Decreased mobility: No ☐ Yes ☐ If yes, age when first noticed: _____ Months

Please describe: _____

Incontinence: No ☐ Yes ☐ If yes, age when first noticed: ___ Months. Feces ☐ Urine ☐ Both ☐

Please describe: _____

Abnormal tail posture: No ☐ Yes ☐ If yes, age when first noticed: _____ Months

Please describe: _____

Training difficulties: No ☐ Yes ☐ If yes, age when first noticed: _____ Months

Please describe: _____

Abnormalities in behavior or personality: No ☐ Yes ☐ If yes, age when first noticed: ___ Months

Please describe: _____

Any other symptoms: _____

Pedigree (family tree) information is very helpful for this research, and is held in complete confidence by the researchers. Please enclose a pedigree copy or registration copy with this survey.

Pedigree enclosed Pedigree will be mailed or emailed separately Pedigree unknown/not available

Any other information you feel would be useful for the researchers, please list on additional pages. Thank you for submitting this sample and completing this information.