

## **SAMPLE HANDLING**

### **For Canine DNA Research at the University of Missouri**

**Blood Sample** - The ideal sample for DNA extraction is 5 to 10cc'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;**

Dr. Gary Johnson - DE 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 DE DNA TESTING & RESEARCH

Blood – Tissue – FTA-swab – semen - other \_\_\_\_\_

Breed: Nova Scotia Duck Tolling Ret.

Registered Name \_\_\_\_\_

Call name \_\_\_\_\_

Reg# \_\_\_\_\_ Birth Date \_\_\_\_\_

Male / Female - - Intact / Neutered

Microchip or Tattoo: \_\_\_\_\_

Color \_\_\_\_\_

**Test Being Requested: DE – Degenerative Encephalopathy in NSDTRs**

Owner: name \_\_\_\_\_

Veterinarian \_\_\_\_\_

address \_\_\_\_\_

address \_\_\_\_\_

city-st-zip \_\_\_\_\_

city-st-zip \_\_\_\_\_

phone (day) \_\_\_\_\_

phone \_\_\_\_\_

phone (eve) \_\_\_\_\_

cell \_\_\_\_\_

Fax \_\_\_\_\_

**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 Cataracts / 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: \_\_\_\_\_

Difficulties swimming: No  Yes  If yes, age when first noticed \_\_\_\_\_ Months

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

Seizures: No  Yes  If yes, age when first noticed: \_\_\_\_\_ Months

Please describe including when seizures occur: \_\_\_\_\_

Sleep abnormalities: 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 or movement: 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 below or on back side of this page. Thank you for submitting this sample and completing this information.**