

## **SAMPLE HANDLING**

### **For Canine DNA Testing 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 2 straws or 10+ 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 & Survey*** that follow 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 survey page. ***PLEASE take the time*** to complete the survey form – this information is very important for the ongoing research.

**Include TESTING FEE of \$65** if only one test is being requested, or **\$50** per test if 2 or more tests are requested for this same dog at the same time. Dogs with clinical signs of the disease being tested for are **\$50**, even if only 1 test is ordered. Enclose check or money order payable to "University of Missouri", or credit card info (Visa, Mastercard or Discover ONLY).

**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 cool packs - it is important that blood samples be kept cool but not frozen, and tissue samples be kept as frozen as possible.

**The delivery address is;**

Dr. Gary Johnson – DNA 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 CANINE DNA TESTING for Jack/Parson/Russell Terriers

Blood – Tissue – FTA-swab – semen - other \_\_\_\_\_ Breed: \_\_\_\_\_  
Registered Name \_\_\_\_\_ Call name \_\_\_\_\_  
Reg# \_\_\_\_\_ Birth Date \_\_\_\_\_ Male / Female - - Intact / Neutered  
Microchip or Tattoo: \_\_\_\_\_ Color \_\_\_\_\_

**Circle Test Being Requested: DM – Degenerative Myelopathy**

**PLL – Primary Lens Luxation**

**SCA - Spinocerebellar Ataxia (2-6 mon onset)**

**LOA – Late Onset Ataxia (6-9 mon onset)**

**NNA – Neonatal Ataxia (visible at 2-4 weeks)**

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):

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 for one test, \$50 per test if 2 or more ordered at same time; frozen semen or tissue, add \$40