

Sample Handling Instructions For Veterinarians

Chesapeake Bay Retriever Degenerative Myelopathy Canine DNA Project

Blood Sample – The ideal sample for DNA extraction is 5-10 cc of whole blood, submitted in purple-topped (EDTA) tubes. For very small dogs or puppies, 3 cc should be sufficient. 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 anything further. Refrigerate if the sample is being held for any time before shipping.

Frozen Semen – if there is frozen semen stored from sires or affected dogs, DNA can be extracted from it. Please send 2 straws. They do not need to be shipped frozen, but do pack in a crush-proof container.

Tissue Sample – Upon death of the dog, donating a tissue sample will provide a nearly endless supply of DNA for research. Please discuss this with owners ahead of time. (If the dog is to be euthanized, have a blood sample pulled first, if possible, and send both samples.) Useful tissues are muscle, spleen, kidney or liver. A 1-inch cube of one tissue is sufficient. The tissue should be removed as soon as possible following death, placed into a labeled freezer bag, which should be placed into a second bag before freezing and shipping.

Label all samples with the following:

Registered name – call name – owner's last name.

If samples from several dogs are sent together, please number the samples and forms.

An **Individual Dog information form should be completed**, and a pedigree copy must be included with the sample to tie it in with the correct family. If the sample is from a relative of an affected dog, please indicate the relationship.

Shipping – Be prepared to ship the sample the same day as it is collected, if at all possible (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. Normally, it is NOT necessary to ship by an overnight service within the US. US Postal Service Priority Mail is adequate. **However, schedule the shipment so that it will NOT arrive during a weekend or holiday period.** There will not be anyone to accept the delivery on the weekend, and the sample could be unusable by Monday. The package carriers do not take responsibility for refrigerating blood samples when delivery to the laboratory is delayed or suspended during holiday periods.

Pack in a small insulated container 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. Packaging materials must be leak proof and meet the general requirements of the US Postal Service and other carriers. Appropriate packaging requires:

- Blood tube inside a sealed plastic bag (or other sealed container).
- Absorbent material inside the plastic bag. One paper towel is sufficient to soak up any potential leakage. Please do NOT wrap towel around the blood vial.
- Cushioning wrap - bubble wrap sheets are best - wrap around the plastic bag loosely. Please DO NOT tape or staple to the plastic bag. DO NOT use household insulation.
- **Warm weather** - if the temperature at your location at the time of shipping is 80 degrees F (26.67 C) or above, follow these additional instructions:
 - Obtain 2 freezable ice packs, available in hardware, drug and grocery stores.
 - Freeze the ice packs overnight. DO NOT SUBSTITUTE ICE CUBES, FROZEN FOOD PRODUCTS OR DRY ICE.
 - Obtain a styrofoam box that fits into an outer box and is large enough to hold the frozen ice packs and the sample and toweling in a plastic bag and add cushioning material as needed.
 - DO NOT freeze the sample before shipping. It will not freeze when packed as described here.
 - Put the information forms in a separate sealed bag to keep them dry.
 - Put in a sturdy container, either box or tube, with enough cushioning inside to prevent movement of the contents.

Send Samples along with completed Individual Dog Information Sheet and Pedigree Copy to:

Att: Kim Lewis / Lara Derr
Division of Neurology and Neurosurgery
Department of Clinical Studies
University of Pennsylvania Vet School
3850 Spruce St,
Philadelphia,
PA 19104

If you need clarification, or have any questions about any of these procedures, please contact Dr Sam Long by phone (215 573 9170), email (longsn@vet.upenn.edu) or mail (address above). Or contact Dr. Briedi Gillespie (ACC Health Committee) at (509-335-2819) or email (btreece@vetmed.wsu.edu).

Thank you for your cooperation and participation in the Chesapeake Bay Retriever Degenerative Myelopathy Project!!