

Modiano Lab: The Samples We Need

The samples we need most include fresh tumor samples and come from as yet untreated dogs affected with **hemangiosarcoma**, **osteosarcoma**, or **lymphoma**. Included in the sample collection kits we ship to veterinarians is transport media specific to these three tumor types. These media help keep fresh biopsy samples in the best possible condition for transport to our lab for cell culture. Unused media can be kept refrigerated (not frozen) for use for up to two years.

Ideal sample submissions include:

- 1) A fresh tumor biopsy sample:** aseptic, representative sample, about the size of a blueberry, taken during surgery (or post mortem **within 20 minutes** of death) and placed in relevant transport medium (provided in sample collection kit).
- 2) A preserved tumor biopsy sample:** clean, blueberry-size or smaller sample placed in a jar of 10% formalin (included in kit). We will submit this sample to our histopathology lab for a definitive diagnosis. *The report from this sample will be forwarded to the dog's attending vet when it becomes available, but, because of the backlog of samples, it should NOT be considered a substitute for the report from the vet's own histopathology lab.*
- 3) A whole blood sample:** 5-10 ml in EDTA purple top tubes (included in kit).

We can accommodate emergency situations, where an untreated dog with a suspected diagnosis is on the surgery table and the owner is willing to contribute tumor and blood samples but the vet is without our kit. In these cases, the vet should get in touch with **Mitzi Lewellen** (lewel001@umn.edu or 612-626-6890, press **Option 1**) at the Modiano Lab for instructions on sample submission.

Because fresh tumor samples are our highest priority and need to be overnighted, we will pay the cost of shipping the kit both ways. We can receive samples at the lab Tuesdays through Fridays (excluding holidays), but **we ask for 24 hours' advance notice** that an overnight sample is coming so that we can have the personnel ready to process it.

Blood-only samples: Blood samples of 5-10 ml in EDTA purple top tubes are always welcome for susceptibility mapping studies. These studies require **blood samples from pedigreed dogs with a definitive diagnosis** of one of the cancers we are researching. To a somewhat lesser extent, we can use blood samples from healthy pedigreed dogs that are close relatives of the affected dogs in our studies. We can even accept blood samples from affected dogs that are being treated by chemotherapy, if the blood draw can be scheduled to occur at the longest interval between treatments.

Although we consider all samples important and useful, blood without tumor samples, even in untreated dogs, is of somewhat lower priority than blood with tumor samples. **Most often these samples will be referred to mapping studies being done by our collaborators (for example, the Broad Institute), which may have additional criteria for inclusion.** We will nevertheless bank samples we receive, even if they are currently ineligible (for example, when they are excluded because of age or breed), as they may be vital for future research efforts.

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The first step to sample submission to the Modiano Lab is contacting Mitzi Lewellen (lewel001@umn.edu or 612-626-6890, press Option 1). She coordinates sample submissions and will provide you with forms and shipping information, and, if appropriate, provide your vet with a sample collection kit.