B.W.Davis Lab Tissue Sampling Instructions

Thank you very much for donating samples for our research into feline genomics. There are multiple preservation methods used to ensure the integrity of the samples. We have tried to streamline the sample collecting process as much as possible; if you feel that we could improve the procedure, please let us know.

RNA Later – Storage of tissue for the study of GENE EXPRESSION

RNA will **degrade rapidly** once the cell membrane is disrupted, so it is **important for the samples to be processed QUICKLY. DO NOT handle the tissues without gloves** as contact with human skin will promote RNA degradation from RNAses.

TESTIS - Once removed from the scrotum, strip them of any fascia, and remove the epididymis and vas deferens. The first **testis should then be cut into pieces no larger than 2.0cm^3** in any dimension in order for the buffer to saturate the pieces. All of the pieces from a single animal can go in the same RNA Later tube (roughly triple the volume of liquid to solid is perfect). Please include the epididymis and vas deferens in the tube as well.

SKIN BIOPSIES – Shave the area thoroughly and prepare with isopropyl alcohol. Stabilize the skin with the thumb and forefinger to produce an oval wound, facilitating closure. Place a cylindrical biopsy punch perpendicular to the skin and apply firm and constant downward pressure with a circular motion, avoiding a back-and-forth twisting motion. When the punch reaches the subcutaneous fat, there is a definite "give" indicating that a full-thickness cut has been made. Remove the punch and apply downward finger pressure at the sides of the wound to pop up the core. Completely elevate the core with gentle use of forceps or a needle tip, and excise it at its base. Apply pressure to the wound with gauze in preparation for closure.

TUMOR TISSUE – Section the tumor into **pieces no larger than 2.0cm^3** in any dimension in order for the buffer to saturate the pieces. All of the pieces from a single animal can go in the same RNA Later tube.

NORMAL TISSUE – If available, section the normal tissue sample (from the same tissue type or organ) into **pieces no larger than 2.0cm^3** in any dimension in order for the buffer to saturate the pieces. All of the pieces from a single animal can go in the same RNA Later tube, but NOT in the same tube as the tumor.

MARGINS – please treat the margins surrounding the tumor as a separate sample, but process it in the same way. If possible, excise 2-3mm around the site of the tumor to allow analysis of gene expression in potential areas of heterogeneous tumor / normal tissues.

Please LABEL and wrap the tops of the tube with provided paraffin wax
Keep in a cool place – But, DO NOT freeze these samples

Please ship these samples immediately (preferably) or next to Dr. Brian Davis at the address listed below. Please send the shipment early in the week, not over a weekend.

If you have any questions or concerns, please feel free to contact me at by phone or email.

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