

Tissue Collection from Outside Source Protocol

Overview:

Tissue stored in the Biorepository is intended for biomedical research and therefore should be of high quality. This entails preservation in a state as close to normal as is feasible. Tissue should be frozen or placed in a fixative or stabilizing agent as soon after removal from the patient as possible, ideally within 30 minutes. Only tissue that is not required for diagnostic purposes should be allocated to the Biorepository. Identification of redundant tissue will be performed by the attending pathologist. No infectious material will be accepted.

Materials:

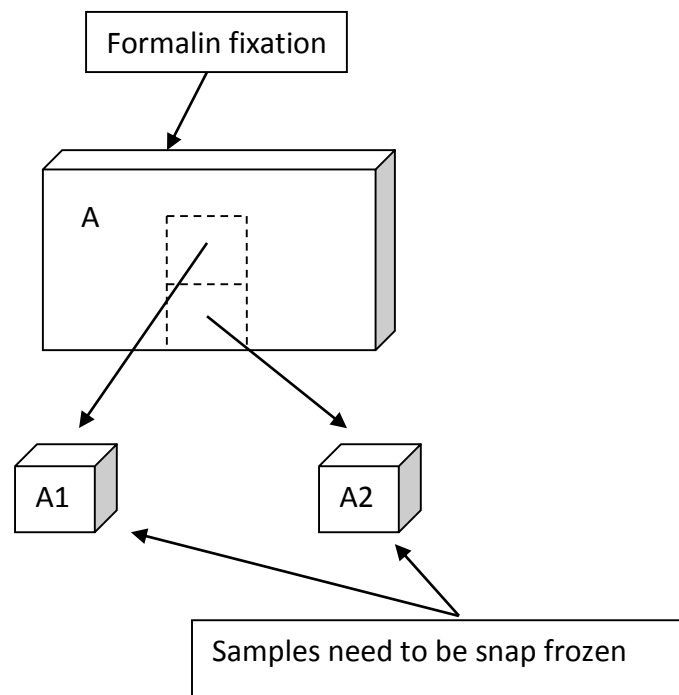
- 1) Dry ice
- 2) Tissue cassettes for paraffin embedding
- 3) Formaldehyde container with 10x as much formalin as tissue to be fixed
- 4) Screw top cryovials for storing fresh tissue for nucleotide extraction
- 5) Scalpel with long blade
- 6) Forceps
- 7) Gloves and apron
- 8) Protective eyewear

Procedure:

- 1) When determining the canine is in need of surgery, the veterinarian will contact the Mizzou OneHealth Biorepository 48 hours in advanced.
- 2) Communication can be made through the Biorepository web site contact form, email mubiobank@missouri.edu, or by paging 573-397-9692 between the hours of 8 a.m. and 4 p.m. CST. A staff member will contact the veterinarian to discuss billing.
- 3). Arrangements will be made for supplies to be delivered to the veterinarian.
- 4). Within 30 minutes of the tumor being removed, the veterinarian or technician will trim tissue segments to approximately 2.0 x 1.5 x 0.5 cm.
- 5) Allocate tumor tissue as follows (see figure 1):
 - a) Two 5mm cubes from bottom center of first tissue segment placed in separate cryovials labeled with the Biorepository ID number and sub-labeled 'A1' and 'A2' to be snap frozen (see diagram below).
 - b) All remaining tissue from this segment placed in plastic cassette labeled Biorepository ID number and sub-labeled 'A' for formalin fixation and paraffin embedding.
- 6) Record patient data and tissue samples obtained on Biorepository work sheet. (See below).

- 7) Allocate normal tissue as follows (see figure 1):
- Two 5mm cubes from bottom center of first tissue segment placed in separate cryovials labeled with the Biorepository ID number and sub-labeled 'B1' and 'B2' to be snap frozen (see diagram below).
 - All remaining tissue from this segment placed in plastic cassette labeled with Biorepository ID number and sub-labeled 'B' for formalin fixation and paraffin embedding.
- 8) Record patient data and tissue samples obtained on Biorepository work sheet. (See below).
- 9) Place cryovials in insulated shipping box with dry ice. Make certain box has room to breathe preventing pressure build up. Place paperwork inside plastic bag provided and place in the shipping container.
- 10) For formalin fixed samples, once specimen has been excised from the patient, the sample must be fixed within 30 minutes. After tissue has been placed in the cassette, make certain the cassette is closed and labeled then place in formalin. Place the formalin filled container in plastic bag provided or seal the lid. Properly place the formalin filled container and paperwork in the shipping box with the lid facing up. Make sure shipping label is attached and ship items by the end of business day.

Figure 1.



Procedure for Biorepository staff:

- 1) Receive shipment and verify that specimen is not infectious material.
- 2) Place already frozen tissue in liquid nitrogen tank for permanent storage.
- 3) Submit formalin fixed tissue to be embedded and sectioned.

- 4) File paraffin blocks and hematoxylin and eosin stained slides after processing.
- 5) Digitize slides with whole slide scanner.
- 6) Pathologist is responsible for evaluating and documenting the adequacy of the specimen in regard to amount of tumor sampled, presence of necrosis and confirmation of tissue of origin, if possible.

Diagnosis:

- 1) Email pathology report to mubiobank@missouri.edu. If this is not possible, please place a copy of the report within the shipping container. Documentation is need to show patient name, sex, age, diagnosis, tissue type, approximate processing time and any other relevant information.
- 2) Veterinarian signs off on paperwork verifying the diagnosis.

Ownership of Tissue:

All tissue is the property of the English Springer Spaniel Foundation representing the pet owners. No tissue or information about the owner will be released from the Biorepository without the written consent of the ESSF.

Allocating samples:

Once the foundation has determined the need for tissue, an email request must be sent to MuBiobank@missouri.edu. Charges will apply according to the request. If samples will be shipped, billing information must be supplied to pay for shipment. For all other requests, please see the price list below.

NOTE: The payment for the first 100 patients will be charged to the Foundation. After the first 100, payment must be received before kits will be shipped. If the first 100 customers would like additional samples stored, outside of the agreement of 1 normal and 1 tumor, payment will be charged to the customer. Kits will not be shipped until full payment has been received.



OneHealth Biorepository

University of Missouri • Department of Pathology & Anatomical Sciences • School of Medicine



Order Form

Primary Investigator: _____

Ordered by: _____

Date: _____ MO-Code: _____

Phone: _____ Email: _____

<u>Services</u>	<u>Price</u>	<u>Quantity</u>	<u>Total</u>
Formalin Fixed Paraffin Embedded Samples			
Embedding			\$
H&E stained section			\$
Unstained section			\$
Recut H&E from Dept. of Pathology archives			\$
DNA isolation (100 nanograms/ per sample)			\$
microRNA isolation (100 nanograms/ per sample)			\$
Fresh Frozen Tissue			
DNA isolation (500ng/ per sample)			\$
RNA isolation (500ng/ per sample)			\$
Wet Bench Procedures			
Cell isolation (blood leukocytes)			\$
Cell separation (B and T cell lymphocytes)	Contact Core for pricing		
QPCR/PCR	Contact Core for pricing		
Library Construction for NGS	Contact Core for pricing		
Library Constructoin for MIRA Seq			\$
Nanodrop Spectrophotometry (per sample)			\$
Pathology			
Pathology report (summary)			\$
Pathology verification of tissue samples			\$
Imaging (WSI Analytics)			
Whole slide scan (digitization)			
	20x		\$
	40X		\$
	60x oil		\$
Total			\$

Signature: _____