The Sheffield Biorepository

Standard Operating Procedure: Pathology Bank Collection of Tissue Samples

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This SOP will outline the procedure for the collection of tissue from the NHS histopathology cut up, the recording and freezing of said tissue, and subsequent storage. This SOP is written in accordance with the Human Tissue Act 2004 and the Codes of Practice of the Human Tissue Authority.

1. Background

This is an SOP for use in Biorepository for the collection and storage of human tissue surplus to diagnostic requirement and without patient consent as required by the Human Tissue Authority (HTA) for a licensed tissue bank.

2. Procedure

1. On being contacted by the NHS Histology cut up (usually by bleep; bleep no.469) petri dishes are collected from the tissue bank air extraction cupboard in room EU17 by the technician along with the folder containing tissue bank data sheets.
2. Complete the data sheet with the patient and tissue details.
3. A Pathologist will sample the tissue. Tumour and background (normal) is preferable and skin or muscle samples where appropriate. Make a note on the petri dish of the Tissue bank No and what the sample is. The tissue should go in the shallow, wide petri dish. The pathologist is responsible for deciding whether the tissue is suitable for sampling in terms of preserving the specimen for diagnosis. Tissue will only be sampled where it will not impair routine diagnosis.
4. Take the specimens to the air extraction cupboard in room EU17.
5. Fill the small silver nitrogen flask from the dispenser (dewar) so that it is a third to half full. Wear appropriate protective clothing.
6. The tissue should then be cut into pieces approximately 7mm^3 for freezing in the petri dish.
7. Take the deep petri dish and using the long forceps, fill this with liquid nitrogen from the flask by submerging it into the liquid nitrogen. Then using the small forceps place the tissue samples into the liquid nitrogen in the deep petri dish – no more than 6 at a time.
8. When the tissue is completely frozen, using the small forceps, place the tissue into a cryovial, previously labelled with the tissue bank number, the ampoule number and the specimen type (Tumour (T) ,Background (B),Skin (S)),then place the cryovial into the liquid nitrogen flask, repeat this process until all the ampoules are complete. N.B. Specimen types must not be mixed i.e. tumour (t) with background (b) etc. The number of ampoule used and how many pieces of what tissue in each ampoule should be recorded onto the data sheet. A note should also be made of the location used in the storage tank i.e. 1/E/8/34 – tank 1,

segment E, drawer 8, number 34.

9. The cryovials then need putting into position in the LN2 80K tissue storage tank. The relevant segment should be removed and the vials placed into position. Large forceps should be used along with protective gloves whilst doing this. The segment should then be replaced into the storage tank.

   The next data sheet should then have the next tissue bank number and the next cryovial location available written onto it. The used data sheet should be stored until the information has been transferred to the database.

   All equipment and data sheets should be returned to EU17.

3. Associated Documents

	Document	Document Reference
1	Pathology Consent statement	BIO:POLICY:11
2	Liquid Nitrogen Riask Assessment	BIO:LN2:RA
3	HTA code of practice: the removal, storage and disposal of Human organs & tissue	BIO:POLICY:07
4	Collection of Fresh Human tissue COSHH	BIO:COSHH:Procedure 04
5	Disposal of Hazardous Waste	BIO:SOP:06
6	Risk assessment for Human samples	BIO:RA:HUMAN SAMPLES
7	SOP for Database entry	BIO:SOP:16
8	Pathology Bank Sample Collection Record	BIO:FORM:09