

**THE CHILDREN'S HOSPITAL AT WESTMEAD**

**TUMOUR BANK**

**STANDARD OPERATING PROCEDURE**

<b>TISSUE SAMPLE COLLECTION AND PROCESSING</b>			
<b>Document Number: TB 05.04</b>		<b>Issue Date: 24/09/2012</b>	
<b>Version: 004</b>			
<b>Author: Albert Chetcuti</b>		<b>Approved by: Daniel Catchpoole</b>	
<b>Title: Project Officer</b>		<b>Title: Head of Tumour Bank</b>	
<b>Signature</b>	<b>Date</b>	<b>Signature</b>	<b>Date</b>

<b>REVISION HISTORY</b>			
<b>Date</b>	<b>Amendment Details</b>	<b>Superseded version</b>	<b>Revised by</b>
26/05/2009	New document		
22/09/2010	Change of protocol	05.04.001	NM/AC
01/12/2011	Annual Review		AC
03/04/2012	Revision of text	05.04.002	KJ
24/09/2012	Annual Review	05.04.003	AC

**1. PURPOSE**

The purpose of this document is to outline standardised procedure to be followed during the snap freezing of tissue samples to provide maximum benefit to the end users.

**2. SCOPE**

This protocol covers tissue and tumour samples collected from CHW patients for whom the Histopathology Department has residual samples, and subsequently contacts the Tumour Bank (TB) for banking and storage.

### 3. RESPONSIBILITIES

The TB Clinical Research Associate(CRA), Project Officer and Research Assistant (RA) have to ensure that these protocols are adhered to at all times when processing and storing tissue samples.

### 4. MATERIALS, EQUIPMENT AND FORMS

- 2.0 LmL cryovials
- blue/orange cryovial lids with inserts
- Appropriate racks to hold tubes while processing
- Tongs
- Freezer Storage boxes
- Lab Bench sample record sheet
- Personal protective equipment - gowns, gloves and safety glasses must be worn at all times.
- Liquid nitrogen

### 5. METHOD

- a. Residual tumour sample following diagnosis is deposited in the TB's Postie Box located in the Histopathology Department -80°C upright freezer.
- b. The TB Project Officer is to check and empty the Postie Box located in Histopathology -80°C upright freezer on a monthly basis using the following procedure.
- c. Empty all vials from the TB's Postie Box into a dewar containing liquid nitrogen.
- d. Bring the dewar back up to the TB specimen reception desk.
- e. Using a 10X10 cryofreeze box sitting in liquid nitrogen, transfer tubes individually from the dewar into the box, recording the information on each tube.
- f. Prepare a MS Excel spreadsheet with these details.
- g. If the biopsy number (BX-##-####) is the only information recorded on the tube, ask the TB's histopathologist to check in the pathology database, to obtain the patient's first name, surname and MRN (or check in Pathnet).
- h. Use the hospitals PowerChart database to check collection date details corresponding to BX number, DOB, and full name.
- i. Use this information to prepare a detailed MS Excel spreadsheet of the samples collected.
- j. Use the TB database to determine if a patient's details have been entered and if consent has been obtained for each patient.
  - If a patient is NOT in the TB's database, highlight the spreadsheet entry in **red**.
  - If a patient is in the Tumour Banks database, but no consent has been obtained, highlight the spreadsheet entry in **yellow**.
  - If a patient is in the TB's database, and consent has been obtained, highlight the spreadsheet entry in **green**.
- k. Forward this MS Excel spreadsheet to the TB's Administration Officer and the 'TB CRA who will then enter patients in RED into the Biogenix database and obtain consent from patients where needed.
- l. Weigh the tumour samples with a blue top cryovial using the 4 decimal place balance in the chemical room. Record the total weight of the tube and subtract from the following to determine the approximate weight of the tissue in the tube.

- blue top cyro vial (2 mL - greiner bio-one) with white cap insert = 2.1223 g
  - blue top cyro vial (2 mL - greiner bio-one) without white cap insert = 1.9713g
  - orange top Corning tube = 1.5531 g
  - 1.5 ml eppendorf tube = 0.9455 g
- m. Place the tubes into a TB freezer box.
- n. Record the weight and location of the sample on the MS Excel sheet created above and forward to the Administration Officer for entry onto the TB database.

6. **SAFETY**

- Caution should be used when dealing with liquid nitrogen. Personal protective equipment should be used, including latex gloves, lab gown, safety glasses.