Title	Tissue Harvesting for Biorepositories
SOP Code	SOP114_01
Effective Date	01-Sep-2012

Site Approvals

Name and Title (typed or printed)	Signature	Date dd/Monyyy

1.0 PURPOSE

This Standard Operating Procedure (SOP) outlines standardized procedures for biorepositories to follow during tumour tissue harvesting. This SOP does not cover detailed safety procedures for handling Human Biological Materials (HBMs).

2.0 SCOPE

This procedure applies to all biorepository responsible for harvesting tissue from the consented participant.

3.0 RESPONSIBILITIES

Processing is performed by the pathologist unless the responsibility is delegated by the pathologist to the pathology assistant or designated biorepository technician.

4.0 DEFINITIONS

See Glossary of Terms.

5.0 PROCEDURE

5.1 Tissue Harvesting

5.1.1 Take care that the resected tissue does not desiccate or is contaminated by surrounding tissue or other samples. If appropriate, change scalpel blades

between dissecting tumour tissue and surrounding uninvolved tissue.

5.1.2 Based on consultation with the pathologist, mark the margins with ink.

5.1.3 Slice the tissue with a clean scalpel. Always use clean scalpel between tissue samples, or between normal and tumour tissue.

5.1.4 Select tumour for banking, without compromising the tissue for pathological examination.

5.1.5 Attempt to preserve and store normal (matching) adjacent tissue as well.

5.1.6 If possible, allow for the banking of multiple samples from one specimen. The tissue may be banked as:

- Samples snap frozen in liquid nitrogen
- Fresh tissue samples in media processed for immediate research use
- Sample frozen in Optimal Cutting Temperature (OCT) medium suitable for producing frozen tissue sections.
- Samples fixed in formalin and paraffin embedded for paraffin sections.
- Concentrate tumor cells from body fluid snap frozen in liquid nitrogen.

5.1.7 Snap frozen tissue samples: Attempt to have as many cryovials as possible.

5.1.8 Based on the tissue harvested, label the necessary cryovials, RNA or DNA tubes, cassettes for OCT, or tubes for formalin processing.

5.1.9 Use cryovials suitable for submersion in liquid nitrogen.

5.1.10 It is recommended to have no less than 250 mg of tissue per vial.

5.1.11 For a small tumour, attempt to harvest samples that are 2-3 mm^3 (depending on tumour size and availability).

5.1.12 If there is abundant tumour, attempt to harvest about 3-4 mm^3 or more (depending on size and availability)

5.1.13 Transfer the tissue to the appropriate receptacle for the processing step, depending on the method of processing/storage.

5.1.14 Timing is critical. Ideally, no more than 30 minutes must elapse between the time of biopsy/resection and time of freezing of a given sample. If, due to practical considerations, the elapsed time is greater, records must clearly document the actual time period (in hours).

6.0 REFERENCES

Health Canada, Food and Drug Regulations, Part C, Division 5, Drugs for Clinical Trials Involving Human Subjects, (Schedule 1024), June 20, 2001.

Health Canada, Guidance for Industry, Good Clinical Practice: Consolidated Guideline, ICH Topic E6, 1997.

2011 NCI Best Practices for Specimen Resources. Office of Biorepositories and Biospecimen Research, National Cancer Institute, Bethesda, MD. http://biospecimens.cancer.gov/bestpractices/2011-NCIBestPractices.pdf

ISBER Best Practices for repositories: Collection, storage, retrieval and distribution of biological materials for research. Cell Preservation Technology 6(1), 3-58, 2008 http://www.isber.org/Pubs/BestPractices2008.pdf

CTRNET Standard Operating Procedures, Canadian Tumour Repository Network, http://www.ctrnet.ca/operating-procedures

7.0 REVISION HISTORY

SOP Code	Effective Date	Summary of Changes
SOP114_01	01-Sep-2012	Original version