Tissue Collection and Transportation

Section:	**Biobank - OHIRC**	**SOP No:**	**B-3-006.00**
Issued By:	**Biobank**	**Approved By:**	**Senior Management**
Supersedes:	**N/A**	**Effective Date:**	**October 12, 2018**

1. PURPOSE

This SOP outlines standardized procedures for UOHI personnel to follow for collection and transportation of tissue samples for the Biobank. This SOP is intended to ensure that tissue samples will be obtained from consented participants in a consistent, safe and efficient manner. This SOP does not cover detailed safety procedures for handling tissue; personnel must follow institutional bio-safety guidelines. This SOP does not cover detailed procedures for sending tissue to pathology; personnel must follow institutional guidelines and recommendations from pathologist or delegate. This SOP has been adapted for the UOHI Biobank use from the CTRNet Standard Operating Procedure: Tissue Collection and Transportation.

2. INTRODUCTION

Tissue samples are a precious resource in the Biobank and procedures must be followed to obtain products with high integrity and quality. Tissue samples are harvested by qualified clinical personnel in the Cardiac OR / catheterization laboratory / procedure room from patients who have been through the informed consent process and agreed to participate in the UOHI Biobank program ("participants").

3. ROLES AND RESPONSIBILITIES

Personnel	**Responsibility / Role**
Biobank Manager / Research Coordinator / Research Assistant	Obtain participant consent, append copy of consent to clinical chart (paper or electronic)
Biobank Manager / Research Coordinator / Research Assistant	Deliver labelled specimen container to OR / Cath lab desk / skin punch biopsy procedure room
Surgeon / Cardiologist / Physician	Harvest tissue as part of clinical procedure or research procedure (e.g. skin punch biopsy)
OR nurse / OR receptionist	Notify Biobank personnel that sample has been collected
Biobank Manager / Research Coordinator / Research Assistant	Transport tissue sample

4. SUPPLIES

- Container with ice
- Appropriate labelled container for resected tissue (Conical tube with screw lid containing phosphate buffered saline)
- Gloves (non-latex recommended) worn to protect personnel handling tissue specimens

5. PROCEDURES

5.1 Timing for Tissue Collection

5.1.1 At time of scheduled clinical procedure (such as: cardiac surgery, myocardial biopsy) or scheduled research procedure (such as: skin punch biopsy).

5.1.2 Communicate with responsible personnel to advise when tissue will be collected and to arrange for timely processing.

5.2 Tissue Collection Procedure

5.2.1 Identify participant and check that informed consent has been obtained. Place a hard or electronic copy of consent in the clinical chart to inform the clinical staff of participant's consent.

5.2.2 Advise responsible physician and clinical staff of participant's agreement for tissue collection for biobanking. Specify which tissue sample is to be harvested. See example of notification to clinical staff (appendix B).

5.2.3 Verify participant information (in keeping with privacy and ethical policies). Ensure that it corresponds with the participant ID number on the Tissue Collection and Processing Worksheet (Appendix A).

5.2.4 Select collection tube with lid containing phosphate buffered saline. Label collection tube (Patient name and MRN), place in specimen collection bag and deliver to OR / cath lab desk / procedure room. Clinical staff can only identify the participant by personal identifying information. At this timepoint, Biobank study number is not applied to the collection tube.

5.2.5 When called to pick up specimen at OR / cath lab desk / procedure room, apply gloves then remove identifying label and replace with label with Biobank study number prior to delivery to Biobank lab for processing.

5.2.6 Place collection tube(s) on wet ice and promptly transport labelled tubes and corresponding Tissue Collection and Processing Worksheet to the Biobank lab for processing.

5.2.7 Never place tissue intended for banking as a fresh frozen specimen in formalin.

5.2.8 Optimally, no more than 30 minutes should elapse between the time of biopsy/resection and time of freezing of a given sample. Document the time of call from OR/ catheterization laboratory / procedure room as "collection time" on the Tissue Collection and Processing Worksheet.

6. ACRONYMS

OR – Operating room
OHIRC - Ottawa Heart Institute Research Corporation
SOP- Standard Operating Procedure
UOHI - University of Ottawa Heart Institute

7. RELATED REGULATIONS AND/OR POLICIES

References:

7.1 Tri-Council Policy Statement 2; Ethical Conduct for Research Involving Humans; Medical Research Council of Canada; Natural Sciences and Engineering Council of Canada; Social Sciences and Humanities Research Council of Canada, December 2010
http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/

7.2 ICH Guidance E6: Good Clinical Practice: Consolidated guideline
http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/ich/efficac/e6-eng.php

7.3 Declaration of Helsinki. http://www.wma.net/en/30publications/10policies/b3/index.html

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

7.5 OTRN OICR Standard Operating Procedures for Biorepositories, Ontario Tumor Repository Network/Ontario Institute for Cancer Research
http://oicr.on.ca/search/apachesolr_search/SOPs%20for%20Biorepositories

Associated OHIRC SOPs:

UOHI Biobank SOP No: B-3-007.00 – Snap Freezing of Tissue

8. APPENDICES

8.1 Appendix A – Tissue Collection and Processing Worksheet Example

8.2 Appendix B – Example of Notification to clinical staff for tissue collection

9. HISTORY

SOP #	Effective Date	Review Date	Summary of Changes
B-3-006.00			

Appendix A – Tissue Collection and Processing Worksheet Example

Subject's DOB: _ _ _ / _ _ _ _
Month Year

Bar Code number: _____

Collection Date: _ _ /_ _ _ / _ _ _ _ Time: _ _ _ _
Day Month Year hh:mm

1) Atrial tissue	2) Other tissue	3) Other tissue	4) Biopsy	5) Biopsy	6) Biopsy

Source of Tissue: OR _____ Cath Lab:_____ Other: _____

Source details: ☐ Atrial cannula site ☐ Myocardial biopsy ☐ Skin punch biopsy Other:_____

CRF Completed by: _____

Samples Received in Laboratory: _ _ /_ _ _ / _ _ _ _ Time: _ _ _ _
Day Month Year hh:mm

Atrial Tissue		
Processing Time	Stored in – 80° C freezer Time	Number of Tissue Aliquots
_ _ _ _ hh:mm	_ _ _ _ hh:mm	_____

Other Tissue		
Processing Time	Stored in – 80° C freezer Time	Number of Tissue Aliquots
_ _ _ _ hh:mm	_ _ _ _ hh:mm	_____

Myocardial Biopsy		
Processing Time	Stored in – 80° C freezer Time	Number of Tissue Aliquots
_ _ _ _ hh:mm	_ _ _ _ hh:mm	_____

Skin Punch Biopsy		
Processing Time	Stored in – 80° C freezer Time	Number of Tissue Aliquots
_ _ _ _ hh:mm	_ _ _ _ hh:mm	_____

Completed by: _____

Appendix B – Example of Notification to clinical staff for tissue collection

Biobank of Human Samples for Research Purposes
OHSN-REB # 20140276

_____ has consented to participate in the Biobank.

During the surgery the following sample will be collected:

- **Atrial tissue plug from atrial bypass cannula**

Preparation of sample:

- The required collection tube will be provided to the OR prior to the case
- Place tissue sample into the collection tube (supplied and labeled)

Once sample is collected, please call #19506 for Susan McClinton, as soon as possible. Susan will be ready to receive the samples at the OR front desk for further processing.

If you have any questions about this study, please contact Susan McClinton at

613-696-7000 ext 19506.