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Protocol status:

Working
We use this protocol and it's working

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Human Liver Sample Collection Protocol -- University of Minnesota TMCs

Forked from [UMN SenNet Liver Collection Protocol](#)

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Cellular Senescence Network (SenNet) Method Development Community

UMN SenNet



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ABSTRACT

Collection protocol obtained from the attached BioNet Specimen Procurement Agreement provided by the UMN CTSI Biorepository and Laboratory Services (BLS).

Tissue Procurement Agreement - 06.2023.pdf

Preparation

- 1
- Patient Identification:** As soon as a patient is scheduled, the research team will email bionet@umn.edu a completed Specimen Procurement Request Form.
- 2
- Patient Consent:** Researcher consents. The original signed consent form will be placed in the patient chart and scanned into Epic. BioNet will verify consent in Epic. If the consent is not scanned in EPIC before the procedure, the researcher will provide BioNet a copy direct (e-mail or hard copy).
- 3
- Collection Supplies:** All supplies will be delivered to the BioNet office at least one day before the procedure and appropriately labeled with researcher name and CTSI Project #.

Collection Kit Components:
PBS (Study team)
Media: DMEM + antibiotics (Study team)
Media tubes (x3 per collection) (Study team)
10% Formalin (Bionet)
FFPE cassette x 5 (Bionet)
Specimen container (Bionet)
OCT compound (Bionet)
OCT mold x 4 (Bionet)
OCT quick freeze box (Bionet)
Liquid nitrogen vapor (Bionet)
Cryovials x 3 (Bionet)
Collection kit containing 10 ml EDTA blood tubes x 2 (Bionet)

Procurement and Processing of Liver Samples

- 4
1. 2 liver biopsy cores will be collected by surgeon.

2. The location of the tissue collection will be recorded by the surgeon.

3. BLS will be paged by OR for immediate specimen pickup.
- 5
- Core 1:

1. Surgeon or OR staff will place core 1 in 10% formalin.

2. BLS procurement will pick up specimen and request Bionet Research Specimen Order.

3. BLS will tape a labeled FFPE cassette to the top of the specimen container.

4. BLS procurement will submit specimen to BLS Histology for FFPE processing. Standard fixation period of 24-72 hours. H&E and trichrome stain requested.

- 6** Core 2:
1. Surgeon or OR staff will place core 2 in specimen container and page BLS.
 2. BLS procurement will pick up specimen immediately and request Bionet Research Specimen Order. Short transit/processing time is critical for this specimen.
 3. Prepare OCT quick freeze box by adding liquid nitrogen. This must be done after the core is collected because the liquid nitrogen vapor will dissipate quickly.
 4. Place core 2 in one OCT mold.
 5. Ensure mold is labeled.
 6. Add OCT compound into mold containing core. Ensure no bubbles surround the tissue.
 7. After OCT sample is frozen, remove and transfer to -BOC freezer storage.
- 7** If liver is collected as a wedge:
1. One wedge will be removed in the OR and placed in PBS.
 2. Split wedge in half and treat as core 1 and core 2, processing according to same instructions.