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UMN SenNet Liver Collection Protocol

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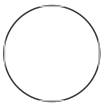
Cellular Senescence Network (SenNet) Method Development Community



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COMMENTS 0

ABSTRACT

UMN CTSI Biorepository and Laboratory Services (BLS)
BioNet Specimen Procurement Agreement
Project Title: SenNet Liver Collection Protocol

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1

Process:

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)

1. Procurement and Processing:
   Tissue:
   Limitation: procedures should be scheduled at East Bank hospital in order to accommodate short
   transit/processing time. Morning procedures are ideal.

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Liver:

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.

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.

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.

Adipose:
Visceral:

1. BLS will drop off PBS in specimen container at the start of the procedure.
2. Surgeon will excise 5-10 g visceral fat and place in specimen container with PBS. OR staff will page
   BLS for specimen pickup.
3. The location of the tissue collection will be recorded by the surgeon.
4. BLS will pick up specimen immediately and request Bionet Research Specimen Order. Short
   transit/processing time is critical.
5. See table below for processing priorities.
6. OCT and FF samples will be stored at -BOC until pick up.
7. Fresh in media samples will be stored at 4C until pick up.
8. BLS procurement will submit formalin specimens to BLS Histology for FFPE processing. Standard
   fixation period of 24-72 hours. H&E requested.
   Sample 1: FFPE, 1g
   Sample 2: OCT, 1g
   Sample 3: Flash Frozen, 1g
   Sample 4: Fresh in Media, 2g

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Sample 5: FFPE, 1g
Sample 6: OCT, 1g
Sample 7: Flash Frozen, 1g
Sample 8: Fresh in Media, Remainder

Subcutaneous:

1. BLS will drop off PBS in specimen container prior to procedure.
2. Surgeon will excise 5 g subcutaneous fat and place in specimen container with PBS. OR staff will page
   BLS for specimen pickup.
3. The location of the tissue collection will be recorded by the surgeon.
4. BLS will pick up specimen immediately and request Bionet Research Specimen Order. Short
   transit/processing time is critical.
5. See table below for processing priorities.
6. OCT and FF samples will be stored at -BOC until pick up.
7. Fresh in media samples will be stored at 4C until pick up.
8. BLS procurement will submit formalin specimens to BLS Histology for FFPE processing. Standard
   fixation period of 24-72 hours. H&E requested.
   Sample 1: FFPE, 1g
   Sample 2: OCT, 1g
   Sample 3: Flash Frozen, 1g
   Sample 4: Fresh in Media, 2g
   Sample 5: FFPE, Remainder

Blood:

1. Study team will set up blood processing instructions with TTL.

2. Study team will place order for blood in EPIC. Please provide BLS pager number in the order notes for pickup contact.

3. Study team will provide preop staff with blood tube collection kits. 2 x 10 ml EDTA blood tubes will be in a bag labeled with BLS pager number for pick up contact.

4. Blood tubes will be held at room temperature until delivery to TTL or pick up by study team.

5. BLS will pick up blood tubes and submit to TTL for processing. If filled blood tubes are returned to BLS past TTL's 2pm processing deadline, study team will be notified to pick up blood tubes and process through Laura Niederhofer's lab.

6. Specimen Release: BioNet will email the research team when specimens are ready for pick-up. Specimens can be picked-up at the BioNet office before 4:00PM. Signature confirmation of

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receipt will be required.

7. BLS will email study team for pickup ASAP since immediate pickup of fresh samples is ideal. Study team will pick up samples after 2pm.

8. Study team will pick up fresh, OCT, and snap frozen samples the same day.

9. If BLS was unable to submit blood to TTL, study team will pick up blood the same day.

10. Study team will pick up FFPE blocks when they are ready (~1-2 weeks after procedure day).

11. Follow-Up: If collection containers or media are stored with BioNet, the researcher will provide new ones for future collections when needed.

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