

Non Controlled Version

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Transfer and Cutting of Tissue Samples

I. Purpose

Work instruction describing how to transfer tissue to, and from, a BSC and methods on how to cut the tissue sample for downstream protocols.

II. References

SOP/Reference Title	SOP/Reference Number
Guidelines For Handling Potentially Biohazardous Materials	LIBPR_WorkInst.0013

III. Related Documents

Document Title	Document Number
N/A	N/A

IV. Procedure

1. Setting Up

- 1.1. Wearing proper PPE, turn on the BSC (Biological Safety Cabinet) and flush following the manufacturer's/laboratory guidelines. Guidelines are posted on the tackboard next to the BSC at the Echelon site of the GSC.
- 1.2. Wipe down working surface with T36 Disinfex (T36). Adjust the location of the equipment already in the BSC to maximize working surface. Wipe down equipment with T36 as well.
- 1.3. Tape a biohazard waste bag inside the BSC for ease of discarding consumables contaminated with biological waste.
- 1.4. Place razor blades, disposable forceps and sterile petri dishes, and sterile p200 pipette tips in BSC. Ensure surfaces are wiped down with T36 or sterile 70% ethanol before placing inside the BSC.
- 1.5. Also place pre-labeled sterile tubes of required size into the BSC. The piece of tissue to be cut or to be transferred will be placed in this vessel.

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- 1.6. If samples are extremely sensitive or precious, a metal plate can be cooled on dry ice prior to transferring the samples to the BSC. Use the cooled metal plate as a work surface in the BSC to cut or transfer samples.
- 1.7. Place an easily accessible box of Kimwipes outside the hood.

2. Transferring Tissue

- 2.1. Wearing proper PPE, fill the bottom of a styrofoam box with dry ice.
- 2.2. Transfer samples from the -80°C freezer to the styrofoam box. Ensure sample vessels are submerged in the dry ice and the sample is covered.
- 2.3. Remove PPE.
- 2.3. Close the lid of the box and carry to the BSC (Biological Safety Cabinet) already set up.

3. Cutting Tissue

- 3.1. Wearing appropriate PPE, wipe down work area again in the BSC.
- 3.2. Ensure that the styrofoam box, filled with dry ice and samples, is within arm's reach as well as all equipment and consumables in the BSC.
- 3.3. As noted in Step 1.6., place a chilled metal plate inside the BSC as a work surface for extremely sensitive samples. This will also provide additional temperature control for those samples that are difficult to work with and to cut.
- 3.4. Place a clean petri dish onto the work surface. Use only 1 petri dish per sample. Discard dish in biohazard waste after use. Change gloves after the discard.
- 3.5. Double glove if required.
- 3.6. Carefully remove sample from styrofoam box into the BSC. Observe the sample to determine whether it is:
 - adhered to the side of the vessel
 - tissue/fluid is very close or touching the outer and upper parameter of the tube
- 3.7. If the tissue has adhered to the side of the tube, gently tap the tube on the work surface to displace it.

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- 3.8. If the tissue is not a solid mass and has a sticky consistency, gently tap the tube on the work surface to displace it to the bottom of the tube. This is to prevent potential splashing and leakage of fluid if present.
- 3.9. Carefully open the sample tube over the open petri dish and transfer the sample to it. If the tissue is not moving independently then use disposable sterile forceps to help the process.
- 3.10. It is important not to manually manipulate the tube too much to avoid thawing the sample. Also this is a preventative measure against possible contamination.
- 3.11. If the tissue needs to be cut, use a new razor blade or scalpel to cut the tissue to specifications desired. Use the lid of the petri dish to help shield any pieces of tissue that are very hard. Hard tissue tends to 'jump' and 'bounce' when being cut. If it is not being cut then transfer it to the pre-labeled tube and place on ice. If required use forceps to transfer
- 3.12. Quickly transfer the cut piece of tissue into a new pre-labeled vessel and put that tube on ice or dry-ice depending on when it will be processed.
- 3.13. Change gloves if necessary, and transfer the original piece of tissue back into its original vessel.
- 3.14. Discard the used petri dish and any other consumable apparatus used for the cutting and tissue into the biohazard waste container.
- 3.15. Change gloves and wipe down work surface with T36. Set up for next sample or proceed to Step 3.15 for clean-up and decontamination.
- 3.16. Ensure all consumable waste in contact with a sample is thrown into the biohazard waste. Tape up the bag and discard it into the biohazard bins.
- 3.17. Wipe down work surface with T36 and 70% ethanol.
- 3.18. Discard gloves into biohazard waste as well.
- 3.19. Turn off the BSC (Biological Safety Cabinet) and flush following the manufacturer's/laboratory guidelines. Guidelines are posted on the tackboard next to the BSC at the Echelon site of the GSC.