Document Title: Extraction Hoods – Biological Safety Cabinets and Fume Hoods

Document Number: TB SOP SOP114

Staff involved in development:	Senior R&D Manager, Tissue Bank Team Leader, Tissue Bank Coordinators, Clinical Project Managers.
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Department:	Research and Development
For use by:	Tissue Bank Staff
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Summary of Amendments

Version Number	Modification:
V1	**Reviewed and updated SOP PRO/TE/TBR/014**

Key related documents:	DN361 Biological Materials for Research Use Policy Trust Policy DN001 Document Control Procedures **Activity Location Guide** ADD.HIS.10995 – Control of Airborne Contaminates & ADD.HIS.5606 – Housekeeping main lab and cut-up. **COSHH** COSHH/RD/TBR/011 – Alcohol (IDA) COSHH/RD/TBR/034 – Tristel duo COSHH/RD/TBR/035 – Tristel fuse **Risk Assessments** RAC/RD/TBR/025- Biological safety cabinet RAC/RD/TBR/037 Handling, Processing and Freezing Fresh Tissue and Blood in the HLRI. **SOP's** SOP095 Laboratory Biological Safety Cabinet

Key Points of this Document

1 Purpose and Contents

a. This document defines the Trust's procedure for the use of Extraction equipment, available to Tissue Bank.

b. The document details the requirements for use of the various extraction equipment Tissue Bank have access to – see the Tissue Bank activity location guide.

2 Roles & Responsibilities

a. This Policy applies to all personnel who use extraction equipment, and they must comply with the requirements set out in Section 4.

b. Training in this procedure will be by a competent member of the RPH research team.

c. Following a period of supervision (depending on the individual needs of the trainee) there will be an informal assessment.

3 Policy

a. This SOP is mandatory and, as per the Trust's Information Governance and Records Management framework, non-compliance with it may result in disciplinary procedures.

4 Procedure

a. For all cabinets:

1. Refer to the local guidelines for operation
2. Wear gloves and a lab coat when using the cabinet

b. Total Containment Solutions (TCS) L500 F/C Fume Cabinet - HLRI

1. A fume hood is an extraction hood designed to extract odours/fumes from the vicinity. It is used for handling chemicals. It does not provide protection against biological agents.
2. Used for reagent handling and preparation only. Fume hoods must not be used for handling fresh tissue or bloods.

c. Class 2 Biological/Microbial Safety Cabinet (BSC or MSC) Cabinets

1. A Class 2 Biological/Microbial Safety Cabinet (BSC or MSC)is a piece of equipment designed to protect the operator, the laboratory environment and work materials from exposure to infectious aerosols and splashes that may be generated when manipulating substances containing infectious agents, such as viruses, bacteria and primary tissue cultures. The principle behind this to provide an airflow that protects the user from the samples as well the samples from contamination.
2. The hood should only be used with a stable airflow, indicated by the green light on the control panel.
3. Only have the equipment and consumables you need in the hood when operating as too much can impede the airflow. Never block the front or rear grill as it will prevent efficient airflow.

d. BioMAT2 Class II Microbial Safety Cabinet- HLRI

1. MSC are not intended to filter vapours containing acids or organic solvents.

2. The BSC must not be used for large volumes of chemicals.3... Used for handling of fresh tissue/bloods.

e. Monmouth Guardian Microbial Safety Cabinet – CUH LMB

1. Please refer to local policies for operation guidelines, see ADD.HIS.10995 – Control of Airborne Contaminates & ADD.HIS.5606 – Housekeeping main lab and cut-up.
2. Gloves and lab coat must be worn when using the BSC.
3. Objects and appliances must be carefully cleaned or disinfected before being introduced into the work chamber. Do not bring in writing utensils, packing material, etc.
4. The front window is positioned in working position and kept in that position during the entire work process.
5. Necessary appliances for use during work must be placed within easy reach.
6. Secure the appropriate protection of the operator as well as the product (e.g. Lab coat, gloves, etc.).
7. Following use, clean up any spillages or debris as per the appropriate waste disposal stream and leave the hood clean and ready for the next user.
8. The hood also has UV decontamination. This can be performed periodically and following any spillages. To activate this setting, press the UV button on the keypad and refrain from looking directly at the bulb.

f. Thermo Electron MSC Advantage 0.9 - Mini Lab, Royal Papworth Hospital

1. Please refer to local policies for operation guidelines in SOP095.
2. Gloves and lab coat must be worn when using the BSC.

5 Risk Management / Liability / Monitoring & Audit

a. The R&D SOP Committee will ensure that this SOP and any future changes to this document are adequately disseminated.

b. The R&D Department will monitor adherence to this SOP via the routine audit and monitoring of individual clinical trials and the Trust's auditors will monitor this SOP as part of their audit of Research Governance. From time to time, the SOP may also be inspected

by external regulatory agencies (e.g. Care Quality Commission, Medicines and Healthcare Regulatory Agency).

c. In exceptional circumstances it might be necessary to deviate from this SOP for which written approval of the Senior R&D Manager should be gained before any action is taken. SOP deviations should be recorded including details of alternative procedures followed and filed in the Investigator and Sponsor Master File.

d. The Research and Development Directorate is responsible for the ratification of this procedure.

Further Document Information

Approved by: *Management/Clinical Directorate Group*			Research and Development Directorate				
Approval date: *(this version)*			Current approved version date				
This document supports: *Standards and legislation*			Medicines for Human Use (Clinical Trials) Regulations 2004 and all associated amendments. UK Policy Framework for Health and Social Care Research (2023) Human Tissue Act 2004				
Equality Impact Assessment: Does this document impact on any of the following groups? If YES, state positive or negative, complete Equality Impact Assessment Form available in Disability Equality Scheme document DN192 and attach.							
Groups	Disability	Race	Gender	Age	Sexual orientation	Religious & belief	Other
Yes/No	NO	NO	NO	NO	NO	NO	NO
Positive/Negative							
Review date:			December 2027				