Document Title: Hand Coverslipping

Document Number: TB SOP112

Staff involved in development:	Senior R&D Manager, Tissue Bank Team Leader, Tissue Bank Coordinators, Clinical Project Managers.
Document author/owner:	Tissue Bank Team/Senior R&D Manager
Directorate:	Research and Development
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/012**
V2	**Reviewed.** **Reference to RAC/RD/TBR/023 amended to RAC/RD/TBR/020**

Key related documents:	DN361 Biological Materials for Research Policy Trust Policy DN001 Document Control Procedures Activity Location Guide **COSHH** COSHH/RD/TBR/018 - DePeX COSHH/RD/TBR/039 - Xylene COSHH/RD/TBR/044 - Pertex **Risk Assessments** RAC/RD/TBR/020 – Hand Cover slipping

Key Points of this Document

1 Purpose and Contents

a. This document defines the Trust's procedure for hand coverslipping.

b. The document details the requirements for the process required for hand coverslipping.

2 Roles & Responsibilities

a. Staff involved in hand coverslipping 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. Following all staining techniques, sections are protected from drying or scratching by mounting them with a coverslip, using a mounting medium.

b. Hand coverslipping is done under the fume hood or over an AFOS table.

c. The mounting media has the same refractive index as glass and so enables the tissues or cells to be clearly visible under light microscopy. The mounting media dries to a hard finish and so slides are easily handled and the tissues sections are protected.

d. A small amount of mounting media is located in the hood in the laboratory. The larger bottles are stored in the flammable cabinet in the laboratory.

e. Before using this mountant make sure that the slides have been dehydrated (e.g. have gone from water through IDA to xylene.)

f. After staining slides either by using the staining machine or by hand, sections must be protected by adding a coverslip and a mountant.

g. Lay clean paper towel inside the hood.

h. Using forceps select a slide; drain off the excess xylene onto paper towel and place the slide section side down onto the coverslip. Pick up the slide and gently tease out any air bubbles from between the coverslip and the slide using slight pressure (e.g. forceps) or stand the slides upright on paper towel against the xylene trough to allow the excess xylene to drain off then tease out any bubbles.

i. Place the slides onto slide trays and leave them in the hood to allow any excess xylene to evaporate.

j. Once slides have dried, check using the microscope to see there are no air bubbles on the tissue. If necessary, re-coverslip slides.

k. If there are air bubbles on the tissue you may need to re-coverslip sides.

l. Soak slides in xylene until the coverslip can easily come off. Depending on how long the coverslip has been on the slide will determine how long it takes for the coverslip to come off. Care must be taken as to not damage the tissue on the slide.

m. Dip the slide in xylene to make sure that the entire residue DPX has been removed from the slide. Coverslip slide following section 4.

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
Ratified by Board of Directors/ Committee of the Board of Directors:	STET
Date:	N/A
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							

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