

RISK ASSESSMENT AND STANDARD OPERATING PROCEDURE

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| **1. PERSON CARRYING OUT ASSESSMENT** | | | | | | | | | | | | | |
| **Name** | Nanet Willumsen | | **Position** | | | Research technician | | | **Date** | | 27/04/2020 | | |
| **2. DESCRIPTION OF ACTIVITY (include storage, transport and disposal if relevant)** | | | | | | | | | | | | | |
| **Immunofluoresence staining on FFPE human tissue**  Generic protocol:   1. In fume hood: Dewax the slides x2 in Xylene and x1 in 100% ethanol, 5mins each 2. Rehydrate the tissue through an ethanol series (100%, 90%, 70%), 5mins each. 3. Place in dH2O, 5mins. 4. Perform an appropriate antigen retrieval (e.g Citrate buffer in steamer), then cool in an ice bucket until it’s at RT. Wash in dH2O for 5mins, followed by a 1XPBS wash, 5mins. 5. Draw a hydrophobic barrier around the tissue. 6. Swiftly apply block solution: 10% animal serum (from the animal the secondary antibody is made from) diluted in Primary Diluent (PBS-Tx 0.3%). Incubate for 1 hr at RT. 7. Dilute primary antibody at the appropriate concentration in a 10% animal serum solution/Primary diluent solution. Apply to tissue and incubate overnight at 4°C 8. Wash slides x2 in 1XPBS for 5mins. 9. Apply the secondary antibody at a concentration of 1:1000 in 1XPBS, incubate for 1 hr in the dark at RT. 10. Wash the slides x3 in 1XPBS for 5mins each. 11. Apply enough Sudan Black (1% in 70% ethanol) to cover the tissue, incubate the slides at RT in the dark for 10mins. 12. Wash the slides x3 in dH2O in the dark, 5mins each. 13. Mount the slides with ANTIFADE with DAPI, then allow the slides to dry for 10 minutes in the dark. Apply clear nail varnish to seal the coverslip, store at 4°C in a dry box in the dark. | | | | | | | | | | | | | |
| **3. LOCATION** | | | | | | | | | | | | | |
| **Campus** | Hammersmith | | **Building** | | | Burlington Danes | | | **Room** | | 4th Floor | | |
| **4. HAZARD SUMMARY** | | | | | | | | | | | | | |
| **Accessibility** | | X | | | | | **Mechanical** | | | | X | | |
| **Manual Handling** | | X | | | | | **Hazardous Substances** | | | | Y | | |
| **Electrical** | | X | | | | | **Noise** | | | | X | | |
| **Working at height** | | X | | | | | **Extreme temperature** | | | | X | | |
| **Falling objects** | | X | | | | | **Pressure/steam** | | | | Y | | |
| **Trip hazards** | | X | | | | | **Other** | | | | X | | |
| **Lone Working Permitted?** | | **Yes**  **No** | | | | | **Permit-to-Work required for planned maintenance?** | | | | **Yes  No  N/A** | | |
| **5. Who might be harmed and how?** | | | | | | | | | | | | | |
| **Staff / students** | |  | | | | | **Cleaners, engineers etc** | | | |  | | |
| **Support staff** | |  | | | | | **Other** | | | |  | | |
| **6. How often is the process being carried out?** | | | | | | | | | | | | | |
| Once a day  Once a week  Once a month  Every 6 months  Annually  Other – give details | | | | | | | | | | | | | |
| **7. Brief description of the procedure** | | | | | | | **Precautions (Controls) in place** | | | | | | **Is risk high, medium or low?** |
| Xylene | | | | | | | Wear PPE and use in a chemical fume hood. Nitrile gloves *will dissolve* in xylene. Dispose via chemical waste route only. Store in fume cabinet separate to flammable solvents, keep away from sources of ignition. | | | | | | Low |
| Ethanol | | | | | | | Wear PPE. Store locked in flammable cupboard. Avoid use near flames, heat or sparks. | | | | | | Low |
| Steamer | | | | | | | Wear PPE, keep away from hot steam outlets. Use forceps to transfer racks into boiling solutions. Do not use glass in steamer. Allow solutions that are too hot to cool before handling/disposing. Do not place steamer directly under plug socket. | | | | | | Low |
| **8. Are extra precautions needed? If no please tick box and move onto next section** | | | | | | | | | | | | | |
| **If yes, please describe** | | | | **Who has been asked to do this?** | | | | | | **By what date?** | | | |
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| **9. EMERGENCY ACTIONS** | | | | | | | | | | | | | |
| **First Aid** treatment for skin contact with xylene and ethanol:  Remove any contaminated clothing. Rinse skin well with water for a prolonged period. If necessary, seek medical attention.  **First Aid** treatment for inhalation:  Remove person to a well ventilated area. If person seems to become dizzy or loses consciousness call security and wait for emergency services to arrive.  **First Aid** treatment for eye splash:  Rinse thoroughly for at least 15min using the eye wash station. If necessary, seek medical attention.  **First Aid** treatment for ingestion:  Do NOT induce vomiting. Rinse mouth with water and seek medical attention immediately.  **First Aid** for scalds (from steam):  Remove from heat source. Cool burn with cool water for >20mins, removing any clothing near burn unless stuck to skin. Can cover with cling film. Seek medical attention if burn is major.  **Chemical Spillage**  Within the laboratory but outside any primary containment facility such as a fume cupboard:  If the spillage is small <2ml, clean up with paper towel and water. See Local Rules. If spillage is Xylene and is large, evacuate immediate area. Notify laboratory manager and building manager. Spill will need to be cleaned up using the chemical spill kit. Facemask, lab coat and xylene resistant gloves must be worn. Dispose of waste in yellow chemical waste bag provided and send through Imperial hazardous waste route.  If spillage is ethanol and is large, use chemical spill kit immediately.  Within a fume cupboard (if relevant):  If there’s a spillage in the fume cupboard. Lower sash as low as possible. Clean spill using chemical spill kit. Dispose of via Imperial hazardous waste route. De-contaminate area with water and paper towel.  **Emergency support through security: 4444 (+442075891000)**  **In all instances** of accident OR near miss, notify the safety department and complete a SALUS report.  <https://www.imperial.ac.uk/safety/safety-by-topic/accidents--incidents/>  Occupational health contacts: <https://www.imperial.ac.uk/occupational-health/>  email: occhealth@imperial.ac.uk phone: +44 20 7594 9401 | | | | | | | | | | | | | |
| **10. Monitor and review** | | | | | | | | | | | | | |
| Controls should be monitored: daily  weekly  monthly  6 monthly  annually  other  I will review this risk assessment at least every 6 months  every 12 months  **Immediately in the event of process / location change or incident or accident** | | | | | | | | | | | | | |
| **11. Training record – use this section to record the names and date of any persons you are training in this risk assessment and associated procedures** | | | | | | | | | | | | | |
| Name | | | | | Date | | | Name | | | | Date | |
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<https://www.imperial.ac.uk/safety/forms/> for all specific risk assessment forms.