**Manchester Institute of Biotechnology - Risk Assessment**



| **Date:**  Feb 2015 | **Assessed by**:  Colin Levy | **Validated by**:  Tanya Aspinall | **Location**:  MIB LG027 | **Review date:**  Feb 2016 |
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| **Task**:  Use of Mosquito Pipetting Robot |
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| **Activity** | **Hazard** | **Person(s) in danger** | **Existing measures to control risk** | **Risk rating** | **Result** |
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| Use of electrical Equipment | Risk of electric shock | User | During training by Dr C. Levy, all users are made aware of potential risks from electric shocks.  All users should have attended a basic health and safety course where part of the instruction covers risks from electric shocks and first aid procedures in the event of a shock.  All equipment is annually tested (PA testing). Equipment without of date, failed or untested labels are not be used until retested.  Any obvious danger, sparks/damaged cables are reported immediately to technical staff and the equipment not used or switched off if in use.  Any faults associated with the equipment must be reported immediately to the person in charge of the laboratory. Unauthorised/untrained personnel must not attempt to dismantle any part of the equipment for any purpose. | L | T |
| Use of Mosquito for setting up crystallisation trays | Moving machinery, Sharps hazard | User | Keep bench area delineated by tape clear of any object during operation. The moving deck of the mosquito will traverse the hatched area during normal operation. Particular attention should be made to avoid placing any part of their body in the path of the moving deck. Dr. C. Levy highlights this potential hazard to users during training and the area of danger is clearly identified on the bench.  Once the robot has been loaded users must not, under any circumstances, place hands into the robot operating area until the selected protocol has either deliberately paused or ended.  Used mosquito tips are a potential sharps hazard and users must dispose of them appropriately in the sharps bins provided. Instruction on their proper handling is provided during training on this equipment.  The following items of PPE must be worn when handling chemical screening plates: Howie-style laboratory coat and BS EN374 compliant gloves (nitrile). Regular lab inspections monitor the wearing of PPE; users found not to be wearing PPE when the risk assessment states that it must be worn will be subject to the MIB compliance policy. | L | T |
| Use of Crystallogenic screens | Chemical Hazard | User | Any chemicals imported to the Facility must have been previously assessed by the User in their home laboratory. COSHH records are the responsibility of the User. All identified control measures must be followed.  Broad crystallographic screens utilised routinely within the facility should be handled wearing gloves (detailed above). The risks are minimised by reducing the volumes of each reservoir solution within a plate to 30ul, these screens are pre-dispensed by Dr C. Levy using the Phoenix robotics platform minimising any exposure to users. Full MSDS for the screens within the facility are available within the Health and Safety folder and Users must familiarise themselves with these documents prior to initiating any screening within the facility. Familiarisation with these documents forms part of the facility training undertaken by all users.  Spillages must be cleaned immediately and the area made safe for other facility users. | L | T |

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| **Authorisation by PI**  **I confirm that I have considered and understand the experiment and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to acceptable levels.**  **Print name: Signed:**  **Date:** |

**Declaration by researcher**

**I confirm that I have read this Risk Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated. Where PPE has been identified as a control measure, I will ensure that it is worn.**

**Declaration by PI**

**I confirm that the researcher who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.**

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| **Name (please print)** | **signed** | **PI countersignature** | **date** |
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