**Manchester Institute of Biotechnology - Risk Assessment Form**



| **Date:** 13/01/2015 | **Assessed by**:  Fiona Marriage | **Validated by**:  Tanya Aspinall | **Location**:  MIB |  | **Review date:**  12/01/2016 |
| --- | --- | --- | --- | --- | --- |
| **Task**  Use of Affymetrix Microarray Suite  After RNA has been extracted samples are processed which includes IVT labelling, hybridisation, washing, staining and scanning the arrays using a fully enclosed laser. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Activity** | **Hazard** | **Person(s) in dange**r | **Existing measures to control risk** | **Risk rating** | **Result** |
| Use of Hybridisation Oven, Wash Station, Scanner, heated blocks and microfuges | Electrical hazard - risk of electric shock | Staff | All equipment and power supplies are safety tested and regularly maintained. | low | A |
|  | Trailing electrical leads – risk of slips/trips | Staff and others in lab | All excess leads are coiled and taped to minimise the risk of slip/trips. | low | A |
| Use of Scanner | Laser Risk | Staff and others in lab | The GeneChip Scanner 3000 7G houses a Solid-State Green Laser. This is a highly reliable, solid-state, self-contained, diode-pumped, frequency doubled YAG laser.  Under normal operating procedures the laser is fully enclosed, the user will not come in to contact with the laser and therefore it presents no risk. | low | A |
| Use of Heat Blocks and Hybridisation Oven | Heated blocks and Hot Air Oven - risk of burns | Staff | Staff trained by supervisor in safe use of heating equipment and written/verbal instructions provided by senior lab members on how to set up reactions and programme the machine.  The following items of PPE must be worn during sample preparation: Howie-style laboratory coat and BS EN3-74 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.  Tubes and racks should be loaded and removed with care. | low | A |
| Use of Kit Solutions | Splash – Skin Contact | Staff | Provided all SOPs are followed correctly and PPE is worn whilst carrying out sample preparation, the risk of solutions coming in to contact with the skin is minimal. MSDS sheets are available in the Safety File for all kit components. | low | A |

|  |
| --- |
| **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.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name (please print)** | **Signed** | **PI countersignature** | **Date** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |