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



| **Date:** 13/01/15 | **Assessed by**: Fiona Marriage | **Validated by**: Tanya Aspinall | **Location**: MIB Room 2.060 |  | **Review date:** 12/01/16 |
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| **Task** Extraction of Nucleic Acids from biological samples including blood and tissue biopsies. Commercially available reagents and kits are used depending on sample type, which include Paxgene/Tempus blood RNA Kit, proprietary RNA/DNA extraction kits and Trizol protocols.  |

| **Activity**  | **Hazard**  | **Person(s) in dange**r  | **Existing measures to control risk**  | **Risk rating**  | **Result**  |
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| Use of Extraction Kits | Biological Hazard – Blood Samples | Staff | Biological material should be treated as potentially hazardous. All personnel working with biological samples should have an up to date Hepatitis B vaccination. All sample waste must be disposed of via incinerator bins and/or yellow clinical waste bags. | low | A |
|  | Cut – Dissecting Tissue Biopsies with scalpel | Staff | All work is to be carried out in the designated cabinet using forceps and either disposable scalpels or the correct scalpel blade and handle. Disposable scalpels and removable blades must be discarded in sharps bin. Disposable Scalpels should be used where possible. If using removable blades and handles the removable blade must only be dismantled using the inbuilt blade removal slot on top of the sharps bin. Howie style lab coats and disposable EN374-3 compliant gloves must be worn at all times when handling biological material. 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.All SOPs should be followed for the safe use of scalpel blades. | low | A |
|  | Chemical Hazard –Trizol (inhalation or touch | Staff | A COSHH assessment (including information on what to do in case of accident) has been carried out for Trizol, and must be read and signed before the work begins. All identified control measures must be followed.Howie style lab coats and disposable EN374 compliant gloves must be worn at all times when handling Trizol solutions. All work must be carried out in the designated cabinet. | low | A |
| Small pieces of electrical equipment(vortex etc) | 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 |
| Sterilising Metal Ball Bearings | Burn Hazard – Sterilising ball bearings by flaming in ethanol | Staff | A COSHH assessment (including information on what to do in case of accident) has been carried out for ethanol, and must be read and signed before the work begins. Metal ball bearings should be sterilised in a heat resistant Petri dish using a small amount of ethanol. Igniting the ethanol should be performed well away from any flammable chemicals/solvents. Howie style lab coats and disposable EN374 compliant gloves must be worn at all times when handling ethanol. | low | A |
|  | Broken glass – risk of cuts from broken glass Petri dishes | Staff | All glass Petri dishes are regularly checked for damage, and broken/cracked/chipped dishes are discarded into the dedicated glass bins for disposal. | low | A |

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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.**

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