Risk Assessment Form

(This is an active document and must be maintained)

UNIVERSITY OF CAMBRIDGE

Materials Science and Metallurgy

Date: 29th March 2017

Supervisor of Room/Area: **Prof. Serena Best & Prof. Ruth Cameron**

Room or area: **2_012, 3, 4, 5, 6, 7 & 8 (CCMM Labs)** (Describe location)

Name of Assessor(s): **Wayne Skelton-Hough**

Title of Activity / Experiment / Work Area:

General laboratory risk assessment – This risk assessment covers the risks likely to be encountered whist carrying out any work in the CCMM laboratories in accordance with the CCMM lab work local rules.

Specific risks associated with individual pieces of equipment are covered by equipment specific risk assessments.

Anyone working in the CCMM labs shall wear appropriate personal protective equipment (PPE) as detailed in the appropriate COSHH and risk assessments consisting of a clean laboratory coat and protective glasses as a minimum.

Description of Activity / Experiment / Work Area:

General low and medium risk activities with the CCMM laboratories.

SECTION 1: Identify all significant hazards, who or what may be affected by each individual hazard and controls in place to reduce risk to a minimum.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Sharps	All lab users	Ensure that any blades used are clean and sharp. If possible always use a cutting mat to cut samples. If it is necessary to hold a sample being cut, try to cut away from your body. **DO NOT** place part of your body directly behind the material being cut. Keep blades covered when not being used. Dispose of used sharps in the Cin Bins provided. **DO NOT** under any circumstances put sharps in any other waste receptacle.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Broken glass	All lab users	Carefully pick up all broken glass and dispose of it in the broken glass kegs provided.
Chemicals	All lab users	Complete COSHH assessment for any work involving chemicals BEFORE commencing work. Store all chemicals in the correct storage cupboard, do not mix incompatible chemicals. Clear up all chemical spills immediately, in accordance with the instructions on the applicable MSDS and COSHH form. Only transport one chemical bottle at a time. Use the provided Winchester carrier to transport larger (2.5 liter) bottles of chemicals
Chemical waste	All lab users	Do not add chemical waste to a bottle unless you are **CERTAIN** of the bottle's contents. Do not over fill waste bottles Replace waste bottle caps with vented caps and do not screw lids down tightly. Do not dispose of chemical waste down the lab sinks unless the risk has been assessed as being safe and noted on the relevant COSHH form.
Electrical equipment	Person using the equipment	Visually inspect all electrical equipment before using it. If there is any damage to the equipment of wires report it to the laboratory technician. Check that the equipment carries an up to date and signed PAT label. If using water near electrical equipment, be careful not to splash water over unprotected surfaces.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Biological samples	All lab users.	Before carrying out any work on biological samples, a separate risk assessment must be completed and approved by the departmental biological safety officer. Biological samples shall be disposed of using the biological waste protocols developed for disposal of the cell culture lab waste. Do not put biological waste in any other rubbish receptacle.
Heights	Person using the equipment	Do not store samples or equipment above head height, except in designated cupboards. If equipment or samples have to be stored above head height, use a purpose built step or step ladders to gain sufficient height to reach the samples/equipment. Before working at height, ensure that a specific risk assessment is carried out and follow the guidance laid out in the departmental safety book.
Wet/slippery floors	All laboratory users	Do not allow stirrers and pumps to operate so fast as to splash chemicals onto the floor. Clean up ALL spills immediately in accordance with the instructions on the applicable MSDS and COSHH form. Wipe up any spilled water immediately.
Heavy weights	Person using the equipment.	Never attempt to lift a heavy object single handedly. Ensure the route to be taken when carry a heavy object is free of ALL obstacles. Lift with your legs and not with your back. Use correct manual handling techniques as laid down in the department safety book.
Ultraviolet light sources	All lab users	The use of any UV light source **must** be covered by a separate risk assessment form.
X-Ray sources	All lab users	The use of the CCMM X-ray Micro-CTs are covered by a separate risk assessment form and local rules.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Laser sources	All lab users	The use of laser sources or equipment using a laser source **must** be covered by a separate risk assessment form.
Bottled and house gasses	All lab users	Except under exceptional circumstances, no gas bottles should be located anywhere inside the CCMM labs. Connecting of gasses should only be carried out but competent persons. When connecting to gas bottles or house gas regulators ensure that the correct fittings are used and that they are in good condition. Where possible use solid lines or purpose made gas lines to transport gasses. Never run flammable gases through plastic gas lines. Always use the lowest possible flow rate when gasses are in use. When in use only non-hazardous gases may be vented into the work space, the use of any hazardous gases **must** be covered by a separate risk assessment and COSHH assessment.
Fumes	All laboratory users	Do not place any chemicals or substances that may degrade at temperature in the ovens, furnaces or drying cabinet without first assessing the risks separately with a COSHH assessment.
Fire	All building occupants	Do not place any flammable/highly flammable chemicals or substances in an oven, furnace or the drying cabinet without first carrying out a complete risk assessment of the process separately.

SECTION 2: Emergency Procedures

If anyone is burnt, the affected area should be run under cold water for at least 15 mins. If symptoms continue, medical attention should be sought.

If the operator sustains a cut, it should be cleaned out and medical attention sought.

In the case of skin exposure to chemicals rinse the affected area thoroughly with copious amounts of running water. Remove contaminated clothing and consult the appropriate MSDS and/or COSHH assessment for appropriate emergency action. If a rash develops, seek medical attention.

If anyone gets coolant or debris in their eye, wash the eye with water for at least 15 mins, lifting upper and lower eye-lid occasionally and then seek medical attention.
In case of exposure to chemicals or fumes, remove yourself to a well ventilated area outside of the affected laboratory area. If symptoms persist, medical attention should be sought.

In case of fire, evacuate that area immediately and raise the alarm by pressing one of the alarm points in the building.

Signature of Assessor(s)		**Date:** 15/09/17
Signature of Supervisor		**Date:** 19/9/17

SECTION 3: Review - This assessment must be reviewed every 12 months or earlier if the basis of the original assessment is altered.

Review Date	Reviewed by (Signature)

Review Date	Reviewed by (Signature)

Change log

Change	Date	Updated by	Description
1	08/07/2016	W. Skelton-Hough	Document issued.
2	29/03/2017	W. Skelton-Hough	Reference to fumes and fire added to the risk assessment.
3	15/09/2017	W. Skelton-Hough	Section 3 added back in to risk assessment.