Queen Mary University of London

Health and Safety Directorate

BIO-COSHH Risk Assessment Form

School / Dept or Institute / Centre	
School or Institute assessment number	
Name of Supervisor	
Supervisor telephone number	
Supervisor e-mail	
Location of work (Lab, building & campus)	

Brief description of work

1 a **Hazard Identification**:

The biological hazards fall into one of the following categories

- Bacteria ☐
- Virus ☐
- Fungus ☐
- Protozoa ☐
- Blood ☐
- Body fluids ☐
- Infectious forms of parasites ☐
- Prion agents ☐
- Other agents (e.g. oncogenes) ☐

Name the biological agent/s to be used in this work and list the ACDP hazard group the agent is assigned to.

Refer to http://www.hse.gov.uk/pubns/misc208.pdf for hazard group listings

Verify that no safer alternatives can be used.

HAZARD GROUP	
Name of Agent	**ACDP Classification**

1 b Notification and peer review

The QMUL BGMSC peer reviews Biosafety risk assessments involving intentional* work at their meetings to provide ensure H&S management and assurance to QMUL on required standards.

**Where manipulation, concentration, amplification or propagation occurs*

i. ACDP Hazard Group 2 or 3 wild type (non-genetically modified) Biological Agents - listed in http://www.hse.gov.uk/pubns/misc208.pdf
ii. Biological Agents without an Approved List classification, but fulfilling the classification for ACDP Hazard Group 2 and 3 on page 7 of http://www.hse.gov.uk/pubns/misc208.pdf
iii. Specified Animal Pathogens Order (SAPO) Group 2 or 3
iv. Biological Agents or materials needing Department of the Environment, Food & Rural Affairs (DEFRA) permit/s for work due to biological risk or import criteria
v. Biological materials (cells, tissue, body fluids either from human or animal / other wildlife sources) **known or strongly suspected** of Biological Agents noted in i – iv.
(E.g. work with sputum samples known or strongly suspected to contain *Mycobacterium tuberculosis*, blood samples known or strongly suspected to contain Human Immunodeficiency Virus and/or Hepatitis B or C viruses).

The project summary and the Bio-COSHH should be submitted to the QMUL Biological Safety Adviser in advance of the BGMSC meeting as noted at http://www.hsd.qmul.ac.uk/a-z/health-and-safety-advisory-group/health-and-safety-adviosry-group/bgmsc/

Notification of the use of biological agents to the HSE

Where a biological agent in Hazard Group 2 or 3 is used for the first time at QMUL and has not already been notified to the HSE under the requirements of the Genetically Modified Organisms (Contained Use) Regulations then HSE will notified at least 20 working days before bringing the agent onto QMUL premises by the QMUL Biological Safety Adviser. **NB - No Hazard Group 4 agent may be brought onto QMUL premises.**

2 Possible route of infection (Tick relevant boxes)

Animal/insect bite	☐
Skin penetration	☐
Inhalation of aerosol	☐
Ingestion	☐
Eye contact	☐
Needle/sharps wound	☐

3 Control Measures

3.1 Engineering Controls (Tick relevant boxes)

The work can be carried out safely on the open bench with good microbiological practice.		
The work must be carried out wholly in a microbiological safety cabinet*		
The work can be carried out partially on the open bench and partially in a microbiological safety cabinet*		
*Specify which type of microbiological safety cabinet is to be used and what part(s) of the work activity must be carried out in it:		
The work must be carried out in a specialised Containment Level room**		
**Specify location of room and containment level required:		
Where engineering controls are used are these subject to a formal performance test, at least every 14 months, and records kept? **If no, this must be arranged.**	Yes	No

3.2 Personal Protective Equipment (PPE) (Tick relevant boxes)

In addition to control of exposure to the agents by engineering controls the following type(s) of PPE will be required for part or all of the activity. **NB Safety spectacles and Howie laboratory must always be worn in microbiological laboratories. If other eye protection e.g. face masks, are required indicate below**

Eye protection		Face protection		Hand protection	
Respiratory protection (Prior to use, a face fit test must be arranged with QMUL Occ Health – see procedure and specific risk assessment)		Other			
Specify the grade(s) of PPE to be worn:					
Specify when during the activity the item(s) of PPE must be worn:					

Non-disposable items of PPE must be inspected regularly and records retained for inspection

3.3 Health Monitoring (Tick relevant boxes)

	Yes	No
Is an effective vaccine/ prophylaxis available?		
Are staff encouraged to be vaccinated?		
Is other health surveillance required for the protection of the health of employees?* *Consider vulnerable employees (e.g. new and expectant mothers, young persons, persons undergoing certain medical treatment)*		

* If yes, this should be arranged via the Occupational Health Unit (13 8700)

4 Instructions, Training and Supervision

4.1 Instructions for the Work Activity. (Tick relevant boxes)

The work activity consists of well documented routine procedures carried out frequently in a controlled environment and requiring only simple and easily understood instructions	
The work activity contains procedures requiring a specific scheme of work (safe system) *	
* Scheme of work; either summarise below or give reference to an attached document:	

4.2 Training. (Tick relevant boxes)

The activity is of such a simple nature and of such low risk that no special training is required	
The activity requires the following specific training to ensure that it is carried out safely* :	

***N.B. Individual training records must be retained for inspection – see QMUL H&S Training Policy for templates**

4.3 Supervision. (Tick relevant boxes)

The supervisor will approve straightforward routine work	
The supervisor will specifically approve the scheme of work	
The supervisor will provide personal supervision during the activity	

5 People other than laboratory workers who might be affected

Identify any persons in the following groups, not directly involved with the work activity, that may be at risk from the hazards of the activity.

People affected	Control
Visitors	
Contractors	
Cleaning staff	

Maintenance staff	
Emergency services	
Undergraduate students	
Trespassers	

Persons identified above may require to be informed, in part or in full, of the information contained in this risk assessment.

6 **Emergency Procedures**. (Tick relevant boxes)

Written emergency instructions must be attached to this assessment document

	Yes	No
Effective disinfectants for decontaminating spills of the biological agent(s) are available.		
Proper and sufficient spill kits are available.		
An emergency procedure is in place and has been practiced (with non-hazardous materials)		
A person with the appropriate training and knowledge has been appointed to deal with spillages of particularly hazardous substances*		
*Specify who they are and how they are to be contacted：		

The location of the following, if applicable, is known to the operator (Tick relevant boxes)

Eye irrigation point		Body shower		First aid box	

The operator knows how to contact the following personnel (Tick relevant box)

First aider		External emergency services 3333	

7 Waste Disposal

7.1 Inactivation or disinfection - Before final disposal or re-use (Tick relevant box/es)

All Liquids contaminated by the biological agent disinfected by a validated disinfectant for the required contact time in the laboratory	
Liquids containing the agent autoclaved where this risk assessment identifies the need for inactivation by autoclaving (**for HG3 or HG2 where other methods are not suitable**) - *minimum sterilization conditions at 121 degrees C for a holding time of 15 min*	
Disposable Solid waste - All tissue culture / petri-dishes containing agar media and all contaminated containers, pipettes, spreaders etc containing medium will be autoclaved (**for HG3 or HG2 where other methods are not suitable**) - *minimum sterilization conditions at 121 degrees C for a holding time of 15 min*	
All Sharps - All opened sharps (contaminated and unused) will be placed in a sharps container for incineration.	
All opened sharps (contaminated and unused) will be placed in a sharps container for autoclaving (**HG 3 or HG2 where other methods are not suitable)** - *minimum sterilization conditions at 121 degrees C for a holding time of 15 min*	
Equipment - Contaminated **disposable** items of equipment will be disinfected by a validated disinfectant for the required contact time in the laboratory	
Contaminated **re-usable** items of equipment / material will be autoclaved where this risk assessment identifies the need for inactivation by autoclaving (**for HG3, and for HG2 where other methods are not suitable**) - *minimum sterilization conditions at 121 degrees C for a holding time of 15 min*	

7.2 Followed by final disposal (Tick relevant box/es):

Disinfected or autoclaved liquids disposed to designated laboratory drain with copious amounts of tap water – *permitted disinfected liquids only (refer to http://hsd.qmul.ac.uk/A-Z/WWTE/index.html)*	
Disinfected or non-disinfected liquid waste – *solidified and/or packaged for off-site incineration*	
Solid non-sharp clinical waste – *packaged in a supplied (PHS) clinical waste yellow bag or eco-lock bin, properly labelled and identified and deposited into designated yellow collection bin for offsite incineration by an authorised hazardous waste contractor (currently PHS)*	
Contaminated sharps in a sharps bin - *properly labelled, identified and deposited into designated yellow collection bin for offsite incineration by an authorised hazardous waste contractor (currently PHS)*	

Specify any other disposal method:

If in doubt contact the QMUL Biological Safety Adviser ext 8378 or H&S Directorate - contacts here

7.3 Further Precautions

If the precautions specified in this form do not adequately control the risks of handling the hazardous substances involved in the work activity specify below the additional precautions required:-

7.4 Residual Risk Level: High / Medium / Low / Negligible

Negligible risk: *if exposure occurs, insignificant risk to health or safety of users / others (or harm to the environment)*

Low risk: *exposure unlikely to cause health or safety problems, but if it did would be easily treated with no lasting effects to user(s) / others health (or no lasting adverse effects to the environment).*

Medium risk: *exposure may have acute effects, which may have a lasting effect to the health and safety of user(s) / others (or lasting harm to the environment).*

High risk: *exposure would cause serious acute effects and/or have serious chronic effects or may cause death to user(s) / others (or cause severe harm to the environment).*

8 Verification of BIO-COSHH Assessment

When this **assessment** is complete it should be signed and dated by the person completing it and then checked and signed by the person responsible for the laboratory/area where the work is being carried out.

Assessed by:		**Checked by:**	
Signature:		**Signature:**	
Date:		**Date:**	

User Declaration

I have read or prepared this Bio-COSHH risk assessment and I understand the risks and the measures that must be taken to control such risks.

NAME: Please print	SIGNATURE	DATE

9 Review of Assessment

When the experimental procedure is reviewed or altered, add below the signature of the assessor and the person responsible for work in the School / Centre & Institute / Directorate. If the findings of this re-assessment have significantly changed then a new assessment form should be completed and any signatories still covered by the modified assessment should sign again. This may warrant submission to the BGMSC for peer review (see section 1). **QMUL policy is for risk assessments to be reviewed at a minimum at least once in three years and annually for medium to high residual risk.**

Reviewed by:		**Review Checked by:**	
Signature:		**Signature:**	
Date:		**Date:**	
Conclusion of review (select): Minor Change/s / No change required / Significant change – new risk assessment to be completed.			

User declaration

I have read this **revised** Bio-COSHH risk assessment, and I understand the risks and the measures that must be taken to control such risks.

NAME: Please print	SIGNATURE	DATE
