## Section 1 Basic Details

**More information on biological safety can be found on the University biosafety pages. Support on completing this risk assessment can be found in the biological safety guidance.**
**Further information on Occupational Health support can be found on the University website.**

| | |
|---|---|
| **Title** | |
| **Risk Assessment reference number** (you may not have one for 1st submission) | |
| **HSE reference number (if applicable)** | |
| **Principal investigator** (if applicable) | |
| **As the manager responsible for this work, you have a responsibility to ensure that all those involved or working on the project have an appropriate level of training and expertise to enable safe working. This includes ensuring that workers read and understand this risk assessment and that all the control measures are in accordance with those approved for the project.** | |
| **Author of risk assessment, if not PI** | |
| **Faculty/Department** | |
| **Date of assessment** (should be prior to starting the work) | |
| **Location of work** (Buildings and room numbers or fieldwork) | |

## Section 9 – Review (please see last page)

**Review record**

Note what changes or updates are made to the risk assessment (if any), and why the review was performed (risk assessment review date expired, change in work process, accident etc.).
Reviewed risk assessment should be submitted to the Biological Safety and GM Committee via biological-gm-committee@aber.ac.uk.

| Review No | Review Date | Prepared by | Approved by | Summary of Changes |
|---|---|---|---|---|
| | | | | |
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## Section 2 Project

This section should describe the project which should be reasonably detailed but not exhaustive. Not more than 500 words.

**2.1: Brief description of project and activities**

## Section 3 Risk Assessment

This section should describe any potential risks to humans and or the environment. It should include a clear and explicit justification of any statements made about the risks with a logical explanation and any relevant evidence or references.

**3.1: Biological agents or materials**

List material/s in any of the following groups. If no material is being used from a given group, mark it as N/A or similar.

| | |
|---|---|
| Biological agents (Group 1) | |
| Biological agents (Group 2) | |
| Biological agents (Group 3) | |
| Specified animal pathogens (Group 2) | |
| Specified animal pathogens (Group 3) | |
| Plant pathogens or pests | |
| Toxins | |
| Carcinogens | |
| Allergens | |
| Human tissues, cells or materials | |
| Human cell cultures | |
| Animal tissues, cells or materials | |
| Animal cell cultures | |
| Plant tissues, cells or materials | |
| Plant cell cultures | |
| Humans | |
| Animals | |
| Plants | |
| Soils | |
| Environmental samples or materials | |
| Waste | |
| Other biological materials<br>Add details below | |

[Enter further details here]

**3.2: Type of work**

E.g. laboratory, fieldwork, other

[Enter details here]

| |
|---|
| **3.3: Identify the harm caused by material/s you have listed in 3.1** |
| [Enter further details here] |
| **3.4: Potential routes of exposure to humans, animals or plants or release to environment** |

| Select all that apply | Inhalation / Ingestion / Injection / Absorption / Other |
|---|---|

| |
|---|
| [Enter further details here] |
| **3.5: Use of biological agents or materials**<br>Briefly describe the scale or volumes of materials in use and their presentation, e.g. "cultures of less than 25ml of plant material". |
| [Enter details here] |
| **3.6: Frequency of use** |
| [Enter details here] |
| **3.7: Maximum amount or concentration used**<br>If possible, briefly describe the concentration of infectious materials in use. Where this is unknown, please describe why (e.g. when using blood). |
| [Enter details here] |
| **3.8: Levels of infectious aerosols**<br>Describe the potential for aerosol generation including at what steps of the process(es) and the possible level of infectious material that could be aerosolised. Where this is unknown, please describe why (e.g. when using blood). |
| [Enter further details here] |
| **3.9: Potential for exposure to biological agents or materials**<br>Using the risk estimation matrix at the end of this form, assess the likelihood of exposure to biological agents or materials. |
| [Enter further details here] |
| **3.10: Who might be at risk** |

| Select all that apply | Research Staff / Other Staff / Students / Visitors / Public / Young people (<18yrs) / New and expectant mothers / Other |
|---|---|

| |
|---|
| [Enter further details here] |
| **3.11: Overall assessment of risk to human health** (Prior to use of controls)<br>Using the risk estimation matrix at the end of this form, assess the likelihood and severity of exposure to biological agents or materials. Record both likelihood and severity here. |

| **Level of risk** (likelihood x severity) | |
|---|---|

| |
|---|
| **3.12: Overall assessment of risk to environment** (Prior to use of controls)<br>Using the risk estimation matrix at the end of this form, assess the likelihood and severity of exposure to biological agents or materials. Record both likelihood and severity here. |

| **Level of risk** (likelihood x severity) | |
|---|---|

## Section 4 Control Measures to Eliminate or Reduce Risks of Exposure or Release

This section should describe the types of controls which will be required to carry out the work safely. You must follow the hierarchy of risk control by choosing the most effective control measures needed to safely carry out your work and not just the easiest controls. Please do not include detailed standard operating procedures which should be specified in separate documents.

**4.1: Containment laboratories or facilities**

| | |
|---|---|
| Select all that apply | Laboratory / Animal facility / Plant facility / Other |

[Enter further details here]

**4.2: Containment level**

| | |
|---|---|
| Select one | Containment level 1 / Containment level 2 / Containment level 3 |

[Enter further details here]

**4.3: Microbiological safety cabinets (MSC) and isolators**

| | |
|---|---|
| Select all that apply | Class I / Class II / Class III / Isolator / Other |

[Enter further details here]

**4.4: Sharps controls**

[Enter details here]

**4.5: Special controls**

[Enter details here]

**4.6: Personal protective equipment (PPE)**

| | |
|---|---|
| Select all that apply | Lab coat / Lab gown / Surgical scrubs / Disposable clothing / Apron / Safety spectacles / Goggles / Face shield / Gloves / Headwear / Footwear / Other |

[Enter further details here]

**4.7: Respiratory protective equipment (RPE)**

Note that respiratory protection should be used as a last line of defence and only when no further controls are suitable.

| | |
|---|---|
| Select all that apply | Filter mask / Half face respirator / Full face respirator / Powered respirator / Breathing apparatus / Other |

[Enter further details here]

**4.8: Storage controls**

Describe the controls used to ensure safe and secure storage of any biological or infectious materials.

[Enter details here]

**4.9: Transport controls**

Describe the controls used to ensure safe and secure transport or movement of any biological or infectious materials. Note that consignment or shipping of infectious materials is subject to international legislation.

[Enter details here]

**4.10: Inactivation controls**

Please note that COSHH Regulation 7 (10) requires specified disinfection procedures for all activities at Containment Level 2 and above.

| Select all that apply | Disinfection / Autoclave / Fumigation / Incineration / Other |
|---|---|

**Disinfection**

Please give details of disinfectant(s), method and validation including concentration of disinfectant and contact time (e.g. supplier's instructions or local validation).

**Autoclaving**

Please give details of autoclave method, calibration, and validation.

**Fumigation**

Please give details of fumigant choice, method of use, validation or process, and how fumigant is exhausted or inactivated.

**Incineration**

Please give details of how material is treated and contained for transport to incinerator. Please also provide details on waste contractor and what duty of care audits are performed.

**Other**

[Please give details of method and validation].

**4.11: Waste disposal routes**

[Enter details here]

**4.12: Health Surveillance and Immunisations (if applicable to staff and students)**

To access advice for health surveillance or immunisation, please contact hasstaff@aber.ac.uk or to arrange health surveillance or immunisation, please contact hr@aber.ac.uk

[Enter details here]

**4.13: Instructions, training and supervision**

Please include the date of the most recent biosafety training for staff undertaking work, along with any other relevant training and experience.

[Enter details here]

**4.14: HSE notification (if applicable)**

Notifications are required for certain infectious agents. If you are unsure, contact the HS&E Team or Biological Safety Advisor.

[Enter details here]

**4.15: Specified Animal Pathogen Order (SAPO) licence (if applicable)**

Permissions are required for specific infectious agents. If you are unsure, contact the HS&E Team or Biological Safety Advisor.

[Enter details here]

**4.16: Plant Health Order (PHO) licence (if applicable)**

[Enter details here]

| **4.17: Import, export or other licence (if applicable)** |
|---|
| [Enter details here] |

## Section 5 Spill or Accident Procedures

This section should describe any procedures used to deal with accidental exposure, release, spillages, or other accident. Consider the type of spillage or accident that could occur as well as the material, volumes, stage of lifecycle or concentration of culture, and routes of infection. Describe what first aid kits, equipment, or materials would be used to contain and decontaminate any spilled material, as well as their safe disposal.

**5.1: Emergency procedures**

**5.2: Emergency contacts**

| Name | Position | Telephone |
|---|---|---|
| | | |
| | | |

## Section 6 Emergency Planning

This section should describe any emergency plan used to deal with serious accidental release. **An emergency plan is only required for high-risk work involving Hazard Group 3 material**. For advice contact the HS&E Team or Biological Safety Advisor.

| **6.1: In case of serious accidental release is an emergency plan required to protect humans or environment** | Yes / No |
|---|---|
| [Enter details here] | |

## Section 7 Final Risk Rating

**7.1: Overall assessment of risk to human health** (after use of controls)

Using the risk estimation matrix at the end of this form, assess the likelihood and severity of exposure to biological agents or materials. Record both likelihood and severity here.

| **Level of risk** (likelihood x severity) | |
|---|---|

**7.2: Overall assessment of risk to environment** (after use of controls)

Using the risk estimation matrix at the end of this form, assess the likelihood and severity of exposure to biological agents or materials. Record both likelihood and severity here.

| **Level of risk** (likelihood x severity) | |
|---|---|

## Section 8 Approval

This section should be signed and dated by the author of the risk assessment and principal investigator, supervisor, or line manager
It must then be submitted to the Biological Safety and GM Committee via biological-gm-committee@aber.ac.uk.

**The work must not commence until approval is obtained from the University Biological Safety and GM Committee.**

**8.1: Risk Assessment Author(s)**

| Name | Signature | Date |
|---|---|---|
| | | |

**8.2: Principal investigator, Supervisor, or Line Manager**

| Name | Signature | Date |
|---|---|---|
| | | |

As the manager responsible for this work, you have a responsibility to ensure that all those involved or working on the project have an appropriate level of training and expertise to enable safe working. This includes ensuring that workers read and understand this risk assessment and that all the control measures are in accordance with those approved for the project.

You should also ensure that the control measures identified in this risk assessment are suitable, being used correctly, and tested where appropriate. For advice contact the HS&E Team or Biological Safety Advisor.

**8.3: Biological Safety and GM Safety Committee**
**To be completed by Chair or approval body only.**

| | |
|---|---|
| Date of meeting or email agreeing approval | |

## Section 9 Review Record

The risk assessment must be reviewed periodically (as described in the biological safety guidance) and immediately if there are any significant changes to the work, risk profile, or following an accident or incident.
Reviews should be undertaken by the individuals performing the risk assessed work, and overseen by the Principal Investigator, group leader, or other person with managerial responsibility for the activity. The responsible manager has a duty to ensure that the review takes place and is recorded.

Please completed on page 1 coversheet of this document.

## Risk Estimation Matrix

| Severity \ Probability | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 |
| 2 | 2 | 4 | 6 | 8 | 10 |
| 3 | 3 | 6 | 9 | 12 | 15 |
| 4 | 4 | 8 | 12 | 16 | 20 |
| 5 | 5 | 10 | 15 | 20 | 25 |

| | Probability | Severity |
|---|---|---|
| 1 | **Rare** - Could happen, but probably never will | **Insignificant** - No treatment or first aid only. No measurable physical effects. |
| 2 | **Unlikely** - Incident foreseeable, but not likely to occur under normal operation or circumstances | **Minor** - Injuries or illness requiring medical treatment beyond first aid. Temporary impairment. |
| 3 | **Possible** - May occur at some time under normal operation or circumstances | **Moderate** - Temporary impairment causing lost time or job restriction. May result in hospital admission. |
| 4 | **Likely** - Expected to occur at some time under normal operation or circumstances | **Major** - Permanent / prolonged impairment |
| 5 | **Almost certain** - Expected to occur regularly under normal operation or circumstances | **Catastrophic** - Fatalities or life-long impairment. Adverse reproductive effects. |