RESEARCH INVOLVING BIOLOGICAL AGENTS

THIS FORM IS TO BE COMPLETED BY ALL STAFF AND STUDENTS UNDERTAKING RESEARCH WHERE BIOLOGICAL AGENTS ARE INVOLVED.

PROCEDURE FOR COMPLETION OF FORM AND RISK ASSESSMENT

The primary aim of this process is to notify the Institutional BioSafety Committee (IBC) of the biological agents to be used and also to clearly identify and control the risks associated with the proposed work to be undertaken. You are required to follow the process detailed within in identifying those risks, making an assessment of them and then determining how (controls) you will reduce and manage the risks.

Step One: Complete all relevant sections detailed in Section A. Section B should be completed in accordance with the risk assessment process detailed below. Advice and assistance can be sought from Curtin Occupational Safety and Health or the Chairperson of IBC, details of which can be found on the Curtin Occupational Safety and Health website

Step Two: For students, sign, submit and discuss your completed risk assessment with your supervisor. Have your supervisor countersign the assessment. For staff, sign, submit and discuss your completed risk assessment with your Head of Enrolling Area. Have your Head of Enrolling Area countersign the assessment.

Step Three: Forward a copy of your completed risk assessment to Curtin Occupational Safety and Health (administrator) who will forward it to the IBC in order to obtain approvals.

Step Four: Keep a copy for your records.

RISK ASSESSMENT

Risk Identification
In identifying the occupational safety and health risks associated with your project you will need to consider the project in its entirety, that is, not only what is being done, but also how it is being done. You will need to identify the risks associated with the equipment and materials being purchased and used; the environment in which you will be operating; your handling of equipment and materials; transportation and storage provisions; waste disposal; other people working in the area, including visitors and contractors; fieldwork and so on. Some or all of these may be relevant to your project and must be considered fully. Further assistance with identifying the risks is contained in each Section of the risk assessment form and can also be obtained from the ‘Making the Workplace Safe’ document (found under Publications/Forms) on the Curtin Occupational Safety and Health website

Assessing the Risk
Make a judgement regarding the probability of the hazard causing an incident (likelihood) and the potential consequences of that incident. This will help you to determine the controls required to reduce to an acceptable level the probability of an incident occurring. In identifying the consequences you will need to consider the potential for damage to personnel, property, the environment and the University’s reputation. Clearly identifying how things can go wrong, the likelihood and the consequences of it, will permit you to determine the need for, and type of action required to adequately control the risk.

Controlling the Risk:
Use the hierarchy of controls below to determine how you can prevent the incident (reduce likelihood) from occurring as this is the most effective means of risk control. Subsequent to this, consider also how you might limit the potential damage (consequences) of that incident.

<table>
<thead>
<tr>
<th>Hierarchy of controls</th>
<th>Question</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>Elimination</td>
<td>Can you eliminate the hazard altogether?</td>
<td>Control risk</td>
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<tr>
<td>Substitution</td>
<td>Can you substitute a less hazardous process or material?</td>
<td>Control risk</td>
</tr>
<tr>
<td>Engineering</td>
<td>Would the hazard be reduced by automating the process, providing mechanical ventilation, barriers, or isolating the hazard?</td>
<td>Control risk</td>
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<tr>
<td>Administration</td>
<td>Are training, policy or safe working procedures required?</td>
<td>Control risk</td>
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<tr>
<td>Personal Protective Equipment</td>
<td>What personal protective equipment would be appropriate?</td>
<td>Control risk</td>
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Monitor and Review:
It is crucial to ensure that the controls you determine and implement are effective for the duration of the project. It will therefore be necessary to develop a system for monitoring and reviewing the implemented controls over time.
### BIOLOGIAL AGENT FORM

**Personal Details**

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
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<tr>
<th>Student/Staff No</th>
<th>Position</th>
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<tr>
<th>Division</th>
<th>Supervisor / Head of Enrolling Area</th>
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<tr>
<th>Phone</th>
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**Project Details**

The project is for the following purposes:

- [ ] Teaching
- [ ] Research
- [ ] Clinical
- [ ] Consultancy

<table>
<thead>
<tr>
<th>Project Title / Unit of Study</th>
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<table>
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<tr>
<th>Brief Project Description</th>
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<table>
<thead>
<tr>
<th>Location(s):</th>
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<tr>
<th>Commencement date</th>
<th>Completion Date</th>
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All completed forms to be sent to Curtin Occupational Safety and Health, Building 599 for processing and forwarding to Institutional BioSafety Committee. Information in respect of the IBC and its role within the University can be seen by visiting the EduSafe website and clicking on the respective sections. The IBC reserves the right to check the implementation of biosafety and stop further work until safety procedures are implemented.

You may also be required to obtain formal approval from the IBC as required under the Gene Technology Act 2000. Full details available on the Curtin Occupational Safety and Health website
SECTION A: Biological Agents

Material of animal or human origin

1. **Origin of material:**
   - [ ] Human
   - [ ] Animal
     - [ ] Blood
     - [ ] Sputum
     - [ ] Urine
     - [ ] Tissue
     - [ ] Faeces
     - [ ] Other

   Please specify species of origin:

   Is the material derived from individuals known to be infected?
   - [ ] Yes
   - [ ] No
   - [ ] don’t know

   Has approval for research involving humans has been sought from the Human Research Ethics Committee?
   - [ ] Yes
   - [ ] No
   - [ ] n.a.

   Please indicate amount of material to be handled (e.g., sample size & no):

2. **Micro-organisms**

   Infectious Micro-organisms
   - [ ] Bacteria
   - [ ] Virus
   - [ ] Fungi
   - [ ] Parasites

   Please specify genus and species:

   Other Micro-organisms

   Please specify genus and species:

   Specify the risk group of the micro-organism

   (See American Biological Safety Association [http://www.absa.org/riskgroups/] for risk categories)

   Include any risks associated with handling these micro-organisms in Section B

3. **Laboratory Classification (PC2, PC3)**

   Is the laboratory classification appropriate for the micro-organism?
   - [ ] Yes
   - [ ] No

4. **Other potentially infectious material eg compost, rubbish**

   Sewage/sludge:
   - [ ] Primary/Raw
   - [ ] Secondary/Activated
   - [ ] Anaerobic Digester

   Other (please specify):

   Please indicate the amount of material handled:

5. **Animals and plants**

   Handling of animals: (specify genus and species):

   Specify numbers of animals to be handled (if possible)

   Are these animals likely to be infected or known to transmit zoonoses
   - [ ] Yes
   - [ ] No
   - [ ] don’t know

   Include any risks associated with handling these animals in Section B

   Has approval for research involving animals has been sought from the Animal Ethics Committee?
   - [ ] Yes
   - [ ] No
   - [ ] n.a.

   Handling of plants (specify genus and species)

   Include any risks associated with handling these micro-organisms in Section B

6. **Is it intended to import material for the research, thereby requiring AQIS permit(s)?**

   - [ ] Yes
   - [ ] No

7. **Standard operating procedures**

   Have you read the Standard Operating Procedures for your laboratory
   - [ ] Yes
   - [ ] No

   (These are available from the IBC [IBC webpage](http://osh.curtin.edu.au/hazardous_substances/biosafety.cfm))

8. **Genetic Manipulation**

   Do any of the organisms involved in this project contain recombinant DNA or does the project involve the construction of recombinant DNA?
   - [ ] Yes
   - [ ] No
   - [ ] don’t know

   (if you answered ‘yes’ then it is a legislative requirement that you must notify the IBC, see the IBC website for details [http://osh.curtin.edu.au/hazardous_substances/biosafety.cfm]).

   Researchers are required to review procedures, training, and the environment in which the research is being undertaken prior to the commencement of work to ensure that control strategies are in place to eliminate the risk of infection or release of the agent/organism.
**SECTION B: RISK ASSESSMENT**

<table>
<thead>
<tr>
<th>Hazards</th>
<th>Ranking</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>What can cause harm or ill-health to staff/students or others?</td>
<td>Make a judgement regarding the likelihood of hazard causing an incident and consequence of an incident (refer to <em>Making the Workplace Safe</em> doc. p.10)</td>
<td>How can you reduce the likelihood of exposure or consequences thereof? You should use the hierarchy of controls in determining how best to control the hazards identified.</td>
</tr>
<tr>
<td>Eg. Organism could be ingested or inhaled Unintended release</td>
<td></td>
<td><em>Hierarchy of controls: Elimination; Substitution; Isolation, Engineering, Administration, Personal Protective Equipment.</em></td>
</tr>
<tr>
<td>Infection could result from contact with skin Material being used presents risks to health from other organisms not being researched</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HAZARDS**

<table>
<thead>
<tr>
<th>HAZARDS</th>
<th>RANKING</th>
<th>CONTROLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>What could harm staff/students/visitors?</td>
<td>E, H, M, L</td>
<td>What are you going to do to reduce the risk?</td>
</tr>
</tbody>
</table>

Continue on additional sheet if necessary

<table>
<thead>
<tr>
<th>Signatures</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student/Researcher</td>
<td>Date</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>

**Conditions of Approval** *(attach further information if necessary)*