USING BIOLOGICALS STANDARD

SCOPE

This Standard applies to all staff, students, contractors and visitors who are participating in, or are affected by Monash University (Monash) related activities.

For the purpose of this Standard, references to 'Monash' include activity at Monash University Australia and Monash College Pty Ltd, unless indicated otherwise.

This Standard sets out the requirements for the purchase, handling and disposal of biologicals and/or animals in accordance with the relevant legislative requirements and standards.

1. Risk Management

1.1 HSW Risk Management must be completed in accordance with the HSW Risk Management Standard:

- Before activities using biologicals and/or animals can commence;
- Before procuring new biologicals and/or animals or related equipment;
- Before the introduction of new procedures, processes or equipment that use biologicals and/or animals; and
- When procedures or processes or equipment that use biologicals and/or animals are modified.

The Risk Management Guidelines: Biologicals provide guidance on what to include when creating a risk assessment for biologicals.

1.2 Safe Work Practices

- Following the completion of risk assessments, Safe Work Instructions (SWIs) must be developed and should include training requirements, appropriate personal protective equipment, Immunisation and/or Health Surveillance requirements and First aid and Emergency procedures.
- Guidelines for the Development of Safe Work Instructions offer guidance on creating effective safe work instructions. For more information and to access the template, refer to the Risk Management and Safe Work Instructions webpage.

2. Procurement of Biologicals

2.1 Prior to procuring biologicals, you must contact the Office of Research Ethics and Integrity (OREI) regarding:

- Requirements for licences, permits or notification to use the biologicals; and
- The physical containment (PC) requirements or Approved Arrangement (AA; previously known as Quarantine Approved Premises, QAPs) classification for use and storage of the biological.

2.2 Prior to procuring biologicals, you must check with your Local Biosafety Officer or relevant staff member (e.g. Operations/Facility Manager, Senior Researcher) regarding:

- The availability of appropriate handling conditions for the biological, e.g. biological safety cabinets;
- The availability of appropriate emergency facilities and procedures required for the biological; and
- The appropriate waste disposal procedures required for the biological.

2.3 SDS

When purchasing biologicals, verify that the SDS for the biological is available in ChemWatch. If the SDS is not available, it must be requested from the supplier, manufacturer or importer.

A copy of all SDSs not currently held in the ChemWatch database must be forwarded to ChemWatch to be included.

3. Importation of Biologicals

3.1 Biosecurity (Quarantine) Requirements

All biological material brought into Australia directly by Monash staff and students is subject to biosecurity requirements as set out in the Biosecurity Act (2015) and Biosecurity Regulations (2016). General information regarding the importation of

biologicals can be obtained from the Department of Agriculture (DoA), website by following the links to the Biosecurity Import Conditions System (BICON), or from the OREI (Research Compliance).

3.2 Permits

Before importing **any** biologicals from overseas, Monash staff and students must obtain the appropriate importation documents through the OREI (Research Compliance). Staff should not apply for permits directly via the DoA.

3.3 Facilities

In certain circumstances, the DOA may require work with specific imported biologicals to be conducted within an Approved Arrangement (AA) site/facility. Such facilities must be of a physical containment level specified by the DAWE and must be inspected by the OREI (Research Compliance) and certified by the DoA prior to the importation of biologicals.

4. Facilities & Safe Work Practices

4.1 Types of Facilities

- Regulatory framework: Facilities for the use of biologicals are defined by the Gene Technology Act, Biosecurity Act and Australian standards for Laboratory design and construction (AS/NZS 2982) and Safety in the laboratory (AS/NZS 2243.3).
- If a new laboratory/studio/workshop is built or the facility is upgraded it must be brought into compliance with AS/NZS 2982.1 and AS/NZS 2243.3. Contact your HSW Consultant/Advisor for advice.
- Certification and signage: Facilities certified by the Office of the Gene Technology Regulator (OGTR) for research involving recombinant DNA technology are signed with OGTR signs denoting the containment level and facility type. Facilities certified by the DoA for research with specified imported biological materials are signed with yellow Approved Arrangement (AA) signs. PC1 – PC4 facilities as defined by AS/NZS 2243.3 will only have a Biological Hazard sign.

4.2 Containment Levels under the AS/NZS 2243.3

AS/NZS 2243.3 defines levels of Physical Containment (PC) for:

- Laboratory facilities
- Terrestrial animal facilities
- Invertebrate facilities
- Aquatic organism facilities

At Monash we have facilities that are classified into three such physical containment levels; PC1, PC2 and PC3. PC1 is the minimal level and describes most general laboratory areas including most teaching laboratories; whereas PC3 is the highest level of containment at Monash and is required for work involving infectious pathogens.

The following sections outline the minimum requirements that must be met. For more detailed information refer to AS/NZS 2243.3, sections 5-9.

4.3 Minimum facility requirements

- Emergency drench showers and eyewash stations must be available at a distance of no more than 15 metres or within approximately 10 seconds travel time from any position in the laboratory. Where these facilities are not available, alternate arrangements should be made in consultation with the HSW Consultant/Advisor for the area.
- Bench tops must be able to withstand heat generated by general laboratory procedures.
- Chairs/stools must be ergonomically suitable for the tasks and adjustable to work with the heights of benches and other equipment. The material must be smooth and impervious to water to facilitate cleaning.
- Wash basins with hot and cold water, or an alternative means of decontaminating hands, must be provided inside each laboratory near the exit.
- Open spaces between and under benches, cabinets and equipment must be accessible for cleaning.
- Write up areas must be separated from work/study areas to minimise the chance of reading and writing materials being contaminated or damaged.

4.4 Personal Protective Clothing and Equipment

- Laboratory workers must wear protective clothing when performing procedures in the laboratory. The use of long-sleeved cotton or polyester wrap around gowns or laboratory coats is recommended.

- Protective eyewear must be worn by all persons when working in the laboratory, unless lesser requirements can be justified by risk assessment. On the other hand, some procedures may require full face protection as determined in the risk assessment for the procedure.
- Closed footwear must be worn by all persons when working in the laboratory.
- The above three items are the minimum personal protective equipment requirements for a laboratory unless lesser requirements can be justified by a risk assessment. Contact your HSW Consultant/Advisor for assistance in assessing such risk.

4.5 Work Practices

Safe work practices, as determined by the risk assessment, must be adhered to. The following guidance material applies:

Audio Headphones, Earphones or Earbuds in the Workplace

First Aid for Research Animal Bites, Scratches & Splashes Guidelines

Laboratory Animal Allergies Information Sheet

Latex allergy/anaphylaxis prevention

Risk Management Guidelines: Biological

Syringes and Needles: Use, Disposal and Incident Follow-Up

5. Human Clinical Samples

5.1 Human clinical samples are to be treated as potentially infectious unless categorically known to be otherwise. For that reason, all clinical samples are to be used in facilities that meet PC2 facility and procedural requirements as described in Section 5. However, if organisms from a higher risk group are isolated or suspected to be found in a clinical sample then the sample should be treated as per that risk group and used in a higher containment facility.

5.2 Procedures that will create significant aerosols must be performed in biological safety cabinets.

6. Microorganisms

6.1 Risk Groups

Microorganisms are divided into risk groups 1 (lowest risk) – 4 (highest risk) based on their risk to health and safety.

- A list of risk group 2, 3 and 4 organisms can be found in AS2243.3, section 3.3 (Tables 3.1-3.11).
- The risk group classification has been established to match the physical containment level of the facility where the work is to be conducted, e.g. risk group 2 organisms must be handled in a PC2 facility.

6.2 Facilities

Facilities where work with microorganisms is to be performed must meet the building requirements and procedural requirements for the physical containment level corresponding to the appropriate physical containment level of that microorganism.

7. Animals

The use of animals for research and teaching purposes at Monash must comply with all relevant Victorian and federal government legislation.

Approval to use animals for research and teaching must be obtained from the Animal Ethics Committee (AEC) before the work commences. Applications must be made through the ERM (Ethics Review Manager) online system.

For all ethical matters relating to the use of animals for research, contact the OREI (Animal Ethics) by email at animal.ethics@monash.edu.

7.1 Facilities

All facilities where animals will be housed or used for research and teaching purposes must be licensed by Animal Welfare Victoria. All queries should be referred to the OREI (Animal Ethics) email at animal.ethics@monash.edu.

- Animals can be held in a variety of containment facilities that are designed to ensure that the animals, and the microorganisms that may be being used in conjunction with the animals, do not escape from containment.

- Whilst the general design is similar to that of laboratories, one key consideration is that of primary containment to prevent cross-contamination and exposure of personnel to allergens and microorganisms. Further details are outlined in AS/NZ 2243.3.

7.2 Transgenic or Knockout Animals

The use of transgenic or knockout animals must meet the requirements of the OGTR as must the facilities where they are housed. General information regarding the use of GM animals can be obtained from the OGTR website or by contacting the OREI (Research Compliance). Approval to use GM animals must be obtained from both the Institutional Biosafety Committee (IBC) and the Animal Ethics Committee (AEC) before any work can commence.

7.3 Occupational Health

It is important to be aware of the potential health hazards and risks associated with working with laboratory animals and to be aware of the precautions needed to prevent or adequately control exposure to the worker. The HSW team can be contacted for advice on any aspects of the health issues associated with working with animals.

7.4 Laboratory Animal Allergy (LAA)

Laboratory Animal Allergy (LAA) is an allergic response to proteins found in animal urine, saliva, and dander. Symptoms can include skin rashes, eye irritation, sneezing, sore throat, and asthma-like symptoms. Those regularly exposed to laboratory animals, particularly rodents, are at risk of developing allergies, often within one to two years. Individuals with a history of asthma or allergies are at higher risk, though anyone can develop LAA with sufficient exposure. Early contact with the HSW Team is required if symptoms develop. The best approach for reducing the likelihood of developing an allergic reaction is to eliminate or minimise exposure to the proteins found in animal urine, saliva, and dander. A comprehensive risk assessment and implementation of appropriate control measures should be undertaken prior to working with animals. For further details and resources, refer to the Laboratory Animal Allergy - OHS Information Sheet.

7.5 Zoonosis

All staff and students working with animals may be exposed to microorganisms carried by the animals, which may also be able to infect humans under the right conditions. These microorganisms will be categorised into one of the risk groups as outlined in Section 7.1.

- Exposure to zoonotic microorganisms may occur via scratches, bites, urine, faeces, needlestick injuries or through aerosols generated by further manipulation of tissue harvested from animals.
- Information on zoonotic diseases associated with the animals commonly used at Monash is provided in Appendix I.
- The appropriate animal husbandry skills, in conjunction with using appropriate personal protective equipment, will reduce the risk of cross infection. In addition, adopting standard PC2 precautions and restricting processes likely to create aerosols to biosafety cabinets will also reduce the risk of zoonotic infection.

Further information and advice on zoonoses can be obtained from the Occupational Health webpage.

7.6 Infectious Animal Models

The considerations outlined in Section 8.3 also apply to research that involves the use of infectious animal models, where infectious pathogens have been administered to animals via injection, oral gavage or dermal abrasion. Appropriate risk control measures must be in place prior to commencement and the HSW team can be contacted for advice.

8. Health Surveillance

Health surveillance involves systematically monitoring for any potential effects of work on health through medical assessments and relevant clinical tests.

Following the risk assessment and application of controls, all persons exposed to laboratory animal proteins that are determined to require health surveillance, must be offered it.

The HSW team coordinates this health surveillance, which typically involves a questionnaire and lung function testing (spirometry).

Additionally, all persons working with human pathogens and microorganisms in risk groups 3 and 4 should also be offered an initial medical examination and, where appropriate, health surveillance, unless a risk assessment has been undertaken to show that these are not required.

Further details are outlined in the Health Surveillance Standard.

9. Immunisation

As part of their work or study, Monash staff and students may be at risk of exposure to infectious diseases including those that are vaccine-preventable. Where the risk assessment demonstrates a need, staff and students must be offered the relevant vaccines in accordance with the Immunisation Standard. The Immunisation Grid should be used to determine immunisation requirements. For further assistance contact the HSW team.

10. Pregnancy and Breastfeeding

Any person who is either pregnant, considering pregnancy or breast-feeding should refer to the Protecting Unborn and Breast-Fed Children Standard and seek out further information provided on the HSW website or by contacting their HSW Consultant/Advisor.

11. Genetically Modified Organisms (GMOs)

11.1 Work/Study with GMOs

- All work/study utilising recombinant DNA technology is controlled through the Office of the Gene Technology Regulator (OGTR). All Monash matters concerning Gene Technology are handled by the OREI (Research Compliance).
- General information regarding the use of GMOs and appropriate approval can be obtained from the OGTR website, or from the OREI (Research Compliance) .
- Applications for approval to conduct dealings with GMOs must be made through the ERM online system.
- No work with GMOs can commence until the appropriate approval has been granted and the facility where the work is to be conducted has been certified by the OGTR.

11.2 Facilities

- Facilities to be used for GMO work must comply with the requirements set out by the OGTR.
    - Facilities must be of the appropriate physical containment level and type for the GMO dealing being conducted.
    - PC1, PC2 and PC3 facilities must meet the OGTR's guidelines for such facilities and be certified.
    - The certification of facilities is managed by the OREI (Research Compliance).
- PC2 and PC3 facilities must be inspected annually by a person deemed competent by the Institutional Biosafety Committee (IBC) and PC3 facilities are also inspected routinely by the OGTR.

12. Induction and Training

12.1 Local induction

A local area induction must be provided to all persons (including Buildings and Property Division (BPD) staff and contractors) by a suitably qualified and competent staff member with knowledge of the biologicals used in the area, to ensure that they are made aware of any specific hazards. The induction can include:

- Identification of biological hazards in the area and the nature of the hazard including exposure routes;
- The location of risk assessments and safe work instructions for the biologicals held and used in the area;
- The use and location of personal protective and emergency equipment for use with biologicals;
- Local procedures, processes or equipment that use biologicals especially those resulting in the generation of aerosols;
- Immunisation requirements for working with biologicals; and
- Local biological waste handling, storage and disposal procedures.

12.2 Biosafety Training

- The training requirements for staff and students working with biologicals and/or animals should be determined using the HSW Training Requirements matrix and meet the requirements of the HSW Induction and Training Standard.
- Biosafety training is essential at multiple levels:
    - University level: broader training that covers biological safety, working with GMOs and biosecurity-controlled goods. This training is mandatory for staff, Postgraduate and Honours students across all Australian campuses of Monash.
    - Local level: Targeted training which has been tailored to the specific task or activity that involves the use of biologicals and/or animals.

12.3 Training in Animal Care and Use

- Monash requires all staff and students involved in the care and use of animals to complete the following mandatory training modules before they can be listed on an approved application in a Monash University Animal Ethics project:
    - Animal Ethics 101 - Understanding your legal responsibilities (prerequisite for Animal Ethics 102). After completing this training, you will understand the regulatory framework governing the use of animals for scientific purposes and your legal responsibilities.
    - Animal Ethics 102 - Getting started - Using animals at Monash University. After completing this training, you will understand the ethics application process and the basics of compliance.
- This mandatory training can be accessed through myDevelopment.
- The Monash Animal Research Platform (MARP) provides practical training courses for all persons that care for and use animals. For more information, go to MARP Technical and Workplace Training. Training in other species is available on request by contacting marp.training@monash.edu.
- Training in specialised research procedures involving animals may need to be obtained through the local research team.

12.4 Local Training Records

- In order for management to demonstrate that local training has been provided to staff and students under their supervision, local training records must be kept and these should include a short description of the points covered in the training provided for each area, including training in specific procedures. The description will act as both a reminder regarding the points that should be covered in the training and as a record of the areas covered in the training.
- Records of local area training must be retained locally and be accessible.
- The staff or student being trained must be able to demonstrate competence in the task/s before a record is completed.
- HSW has developed Guidelines for developing OHS Local OHS training and a proforma to use to record completion of local training. This meets the requirements of the HSW Induction and Training Standard.

13. Waste Disposal

Correct biological waste management involves a structured program to ensure that any wastes generated are correctly identified in terms of their potential hazard to the environment and to any staff or students handling them.

13.1 All Biological Waste Must Be:

- Disposed of in accordance with the Guidelines for the Transport, Storage and Disposal of GMOs version 1.1(2011)- Sections 3.1.6 - 3.1.9, AS/NZS 2243.3-Section 13 and/or import permit conditions and AA class requirements.
- Handled by appropriately trained staff who are provided with appropriate personal protective equipment;
- Segregated according to the particular hazards, treatment methods and recycling or re-use opportunities associated with the waste type and the facility type, as outlined in the:
    - Waste Disposal Summary table;
    - Guidance on GMO Decontamination and Disposal
    - Procedures for recycling waste from OGTR-certified facilities; and
    - Syringes, Needles and Syringe Barrels – use and disposal

Note: The OREI (Research Compliance) must be contacted before implementing laboratory recycling programs for OGTR certified facilities. Recycling from AA sites is not permitted under any circumstances.

- Packaged to ensure that:
    - The waste materials cannot escape the container at any time;
    - Containers used conform to the colour coding and marking system specified by Australian Standards, are fit for transport; and
    - Will not pose risks to personnel handling the wastes such as infrastructure support staff and waste disposal contractors.
- Clearly labelled identifying:
    - The type of waste material;
    - The major contaminant or risk associated with the waste;
    - The area that generated the waste and their contact details, e.g. phone number; and
    - Date of generation;

13.1.1 OGTR-certified PC2 facilities:

- Waste must be disposed of at the point of use into bins that are lined with two yellow “Biohazard” bin liners in accordance with the Guidelines for the Transport, Storage and Disposal of GMOs version 1.1 (2011) for

double-containing waste.

Note: Waste must be double-bagged before it is placed in the large biohazard waste collection bins provided by the waste contractor.

- Where Clinismart C64 and G64 bins are used, they can be used with a liner or without one. The bin liner must be tied off by a laboratory member and the lid locked securely into position prior to collection by the waste contractor.

Note: Sharps waste cannot be placed into these bins and should be disposed of into separate sharps bins.

13.1.2 AA sites:

- All Biosecurity waste must be disposed of only into bins labelled 'Biosecurity waste'.

Note: There are strict holding times for Biosecurity waste before it must be collected for destruction.

- Bins must be stored in a secure site/area specifically designated for the waste type and for the academic/administrative unit generating the waste, and refrigerated, if required. The waste store must comply with EPA bunding guidelines to ensure spills will not cause pollution or pose an environmental hazard.
- Waste can be disposed of by a licensed EPA-prescribed waste contractor, however, where appropriate, waste may be autoclaved and disposed of to landfill as outlined in the Waste Disposal Summary table.
- Waste must be transported in such a manner to ensure that the health of staff, students and visitors to the university, and/or the environment is not compromised and is in accordance with Victorian EPA requirements and the Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road and Rail.
- For biological waste contaminated with radiation, the University's Radiation Protection Officer must be contacted.
- In any other instance where the waste type is unclear, the HSW team should be contacted for advice.

14. Emergencies Involving Biologicals and Animals

14.1 Incident and Emergency Response

- Emergency procedures for a biohazard spill are available on the Emergency Procedure poster. For off-campus locations, local emergency procedures must be followed.
- All incidents must be reported in SARAH and notified to your supervisor, Biosafety Officer and Safety Officer as appropriate.
- Incidents involving GMOs (including unintentional release into the environment) must also be immediately reported to the Research Compliance Officer who will in turn notify the Institutional Biosafety Committee (IBC) and the OGTR.
- Incidents involving unintentional release of imported biological material that is under biosecurity control (e.g. spill outside an AA, incorrect disposal) must be immediately reported to the Research Compliance Officer, who will in turn, notify the DoA.
- Incidents that involve animals, such as expected or unexpected adverse events, must be reported to the Animal Ethics Committee via an incident report in ERM.

14.2 Crisis Management

- Monash has invested considerable resources on planning crisis management and recovery. This planning includes consideration regarding crises involving biologicals.

15. Responsibility for Implementation

A comprehensive list of HSW responsibilities is provided in the document HSW Roles and Responsibilities Standard. A summary of responsibilities with respect to this Standard is provided below.

15.1 Health Safety & Wellbeing (HSW): The responsibilities of HSW include:

- Developing, maintaining, reviewing and auditing the University's policies, procedures and systems related to biological safety management;
- Advising on appropriate immunisation; and
- Providing information, instruction and training on biological safety management.

15.2 Office of Research Ethics and Integrity (OREI): The responsibilities of the OREI include:

Research Compliance Team:

- Administering all matters relating to the Gene Technology Act 2000 (including the Gene Technology Regulations 2001) and Biosecurity Act 2015 and their discharge; and

- Providing information, instruction and training on work involving GMOs or biologicals subject to biosecurity requirements.

Animal Ethics Team:

- Administering all matters relating to the use of animals for research and teaching purposes in accordance with the Australian Code for the Care and Use of Animals for Scientific Purposes (2013) and the Prevention of Cruelty to Animals (POCTA) Act; and
- Providing information and instruction on regulatory issues, animal care and the Animal Ethics approval process.

15.3 **Management:** It is the responsibility of Management to ensure that procedures and systems are in place in their area to manage biologicals and/or animals effectively to ensure:

- A healthy and safe environment for staff, students, visitors and contractors;
- That local standards and practices comply with legislative requirements and Monash procedures; and
- That induction and training in the use of biologicals and animals is provided to all persons under their supervision.

15.4 **Biosafety Officers:** It is the responsibility of the Biosafety Officer to:

- Advise, inform and instruct staff and students on the local use, storage, transport and disposal of biological substances, including appropriate equipment, facilities and work practices to prevent exposure to any harmful biological material and ensure appropriate containment;
- Assist in local induction of new staff and students with regards to biosafety, OGTR and biosecurity matters;
- Serve as a local source of expertise to the academic/administrative unit regarding biosafety, OGTR and biosecurity requirements including licensing, certification of facilities and classification of activities under the relevant legislation and standards;
- Monitor local area compliance with biosafety, OGTR and biosecurity requirements with regard to the use and disposal of hazardous biological materials and recombinant DNA molecules;
- Liaise with the University's Research Compliance Officer, HSW, local HSW committee, head of academic/administrative unit and local Health and Safety Representative (HSR) in matters relating to biosafety, OGTR and biosecurity;
- Review biosafety aspects of research projects and teaching activities and provide advice/assistance on document preparation, e.g. risk assessments, OGTR applications;
- Develop and implement emergency response procedures for incidents involving biohazardous agents and materials;
- Participate in workplace inspections of research and teaching facilities for compliance with regulations and guidelines pertaining to the use, handling, and disposal of potential biohazards and recombinant DNA;
- Respond to and investigate all biosafety incidents occurring within the area, and develop corrective action plans; and
- Report any breach of compliance to the Research Compliance Officer, who will in turn notify the Institutional Biosafety Committee (IBC) and HSW.

15.5 **All Persons**: All persons using biological and/or animals must comply with this Standard and any other relevant HSW instructions, policies and procedures using control measures and/or personal protective equipment to ensure their own health and safety as well as the health and safety of others.

16. Tools

16.1 The following tools are associated with this Standard:

Animal Facility Induction Checklist

Audio Headphones, Earphones or Earbuds in the workplace

First Aid for Research Animals Scratches and Splashes Guidelines

Footwear in Laboratories Poster

Immunisation Grid

Laboratory Animal Allergies Information Sheet

Laboratory, Studio, Workshop, Makerspace – Local Area Induction Checklist

Latex allergy/anaphylaxis prevention

Syringes and Needles: Use, Disposal and Incident Follow-Up

17. Records

For HSW Records document retention please refer to the University's: Information Governance and Recordkeeping Procedure

18. Abbreviations and definitions

AA	Approved Arrangement
B&P	Buildings and Property
DoA	Department of Agriculture
DNA	Deoxyribonucleic Acid
EPA	Environment Protection Authority
GM	Genetically Modified
GMO	Genetically Modified Organism
GT	Gene Technology
HSW	Health, Safety and Wellbeing Team, Lead by the Director Health, Safety & Wellbeing
IBC	Institutional Biosafety Committee
LAA	Laboratory Animal Allergy
OGTR	Office of the Gene Technology Regulator
OHS	Occupational Health and Safety
HSW	Health, Safety & Wellbeing (Australia)
OREI	Office of Research Ethics and Integrity
PC	Physical Containment
SDS	Safety Data Sheet
SWI	Safe Work Instructions

Key word	Definition
All Persons	These include: ● Staff - A worker employed under a contract of employment who is actively participating in Monash University related activities (e.g. employee, fixed term, tenured, casual). ● Student - A person engaged through a student contract who is actively participating in Monash University related activities (e.g. undergraduate, postgraduate). ● Contractor - A person from another organisation engaged through a service contract who is actively participating in Monash University related activities and for whom Monash University is not their sole source of work (e.g. tradesperson, temporary staff, consultant). Visitors - A person not employed or enrolled with Monash, who is actively participating in Monash University related activities at no cost or on mutually agreed terms.
Animals:	An animal is defined as any multicellular heterotrophic eukaryote belonging to the Kingdom Animalia (vertebrates and invertebrates). Under the Code and POCTA Act, the following require Animal Ethics approval: ● A live non-human vertebrate including any fish or amphibian that is capable of self-feeding (note, for zebrafish this is 7 days post-fertilisation), and reptiles, birds and mammals that have passed the normal mid-point of gestation of incubation for the particular species. ● A live adult decapod crustacean that is a lobster, crab or crayfish. ● A live adult cephalopod including an octopus, squid, cuttlefish or nautilus.

	Animal Ethics approval is not required for insects, millipedes, annelids (worms), gastropods (slugs and snails) or spiders, shellfish (bivalves, mussels, oyster and scallop); eggs, spat or spawn of fish.
Biologicals	For the purpose of this Standard, the definition of a biological will include, but not be limited to blood, blood products, tissue, body fluids (e.g. urine, faeces, semen, vaginal secretions, pericardial fluid, cerebrospinal fluid, synovial fluid, pleural fluid, amniotic fluid, saliva, mucus, any fluid with visible blood) and any derivatives produced by chemical or physical means (e.g. protein, enzyme or blood fractions). In addition, it is intended to cover microorganisms (bacteria, viruses, parasites, fungi, prions) wildtype or mutant and plants and plant material. It is not intended to include live animals in this definition.
Biological Wastes	These are covered by Environment Protection Authority (EPA) Regulations and are legally known as "clinical and related" or prescribed wastes and include: ● Discarded sharps; ● Laboratory and associated wastes directly involved in specimen processing; ● Human and animal tissue, including materials or solutions containing or contaminated with blood or body fluids; ● Cytotoxic wastes; and ● Pharmaceutical wastes.
Gene Technology	For the purpose of this Standard, gene technology is defined as any technique for the modification of genes or other genetic material, but does not include sexual reproduction, homologous recombination or any other techniques specified in Part 2, Division 2 of the Gene Technology Act (2000).
Genetically Modified Organism	For the purpose of this Standard, a genetically modified organism (GMO) is defined as: ● An organism that has been modified by gene technology; ● An organism that has inherited traits from an organism (the initial organism), being traits that occurred in the initial organism because of gene technology; or ● Anything declared by the Gene Technology Regulations to be a genetically modified organism, or that belongs to a class of things declared by the Regulations to be genetically modified organisms. But does not include: ● A human being, if the human being is covered by paragraph (a) only because the human being has undergone somatic cell gene therapy; or ● An organism declared by the Regulations not to be a genetically modified organism, or that belongs to a class of organism declared by the Regulations not to be genetically modified organisms.
Management	The term Management for the purposes of this Standard includes roles such as: Operational Managers, Supervisors, Senior Leadership Team(s), Extended Leadership Team(s). Management are ultimately accountable for the HSW outcomes within their areas of control.
Organism	For the purpose of this Standard, an organism is defined as a biological entity that in at least some form is capable of response to stimuli, reproduction or transfer of genetic material, growth and development, and maintenance of homeostasis.

19. APPENDIX I – Examples of Zoonotic Diseases

Host[1]	Disease in Humans	Causative agent	Mode of transmission
Sheep	Brucellosis	*Brucella* spp	Direct contact with infected semen Foetuses, foetal membranes, Vaginal secretions
Sheep	Q-fever	*Coxiella burnetii*	Inhalation Direct contact with amniotic fluid or placenta
Sheep **Non-human primates**	Campylobacteriosis	*Campylobacter* spp	Ingestion (faecal-oral route)
Sheep **Non-human primates**	Tuberculosis	*Mycobacterium* spp	Inhalation Direct contact Ingestion (faecal-oral route)
Macaques	B virus encephalitis	*Macacine alphaherpesvirus* 1	Direct contact Bite wounds
Rodents **Farm and wild animals**	Leptospirosis Weil's disease (severe form of Leptospirosis)	*Leptospira* spp	Direct contact Urine Contaminated soil and water
Rodents **Rabbits** **Sheep** **Farm animals**	Ringworm	Fungal spp (*Trichophyton, Microsporum,, Epidermophyton)*	Direct contact Soil may be a reservoir
Farm animals **Rodents** **Amphibians**	Salmonellosis	*Salmonella* spp	Ingestion (faecal-oral route) Inhalation Direct contact
Farm animals **Rodents** **Amphibians**	Giardiasis	*Giardia duodenalis*	Ingestion (faecal-oral route) Direct contact
Birds	Psittacosis	*Chlamydia psittaci*	Inhalation Direct contact
Zebrafish **Amphibians** **Aquarium water**	Cryptosporidiosis Bacterial infections	Cryptosporidium (Protozoan) Various bacterial species	Direct contact Ingestion (faecal-oral route)
Bats	ABLV infection (Paralysis, Convulsions)	Australian Bat Lyssavirus	Bites/scratches

[1]The host examples listed in this table are those relevant to Monash activities.

GOVERNANCE

Parent policy	HSW Policy
Supporting schedules	N/A
Associated documents	**Australian and International Standards** • ISO 45001:2018 Occupational Health and Safety Management Systems • AS/NZS 2982:1997 Laboratory design and construction • AS/NZS 2243.3:2022 Safety in laboratories Part 3: Microbiological aspects and containment facilities • AS/NZS 3816:1998 Management of clinical and related wastes • AS/NZS 4031:1992 Non-reusable containers for the collection of sharp medical items used in health care areas • AS/NZS 1319:1994 Safety signs for the occupational environment **Other Documents** • Guidance notes for the transport of Class 6.2 (infectious substances) dangerous goods (1997) • Guidelines for the Transport, Storage and Disposal of GMOs, Version 1.1 (2011) • Industry Code of Practice for the Management of Biohazardous Waste (including Clinical & Related wastes), 7th edition (2014) **Monash University HSW Documents** • Development of Safe Work Instructions Guidelines • Health Surveillance Standard • Immunisation Standard • Management of Suspected Exposure to Macacine Alphaherpesvirus 1(Bvirus) Standard • OHS Information Sheet – Syringes, needles & syringe barrels – use & disposal at Monash University • HSW Risk Management Standard • Risk Management Guidelines: Biologicals • HSW Induction and Training Standard • HSW Training Requirements matrix
Related Legislation	• Australian Dangerous Goods Code v7.7 2020 • Australian Code for the Care and Use of Animals for Scientific Purposes 8th Edition, 2013 • Biosecurity Act 2015 • Biosecurity (Consequential Amendments and Transitional Provisions) Regulation 2016 • Code of Practice for Housing and Care of Laboratory Mice, Rats, Guinea Pigs and Rabbits (Vic) • Environment Protection Act 2017 • Environment Protection (Industrial Waste Resource) Regulations 2009 (Vic) • Gene Technology Act 2000 • Gene Technology Regulations 2001 • Occupational Health and Safety Act 2004 (Vic) • Occupational Health and Safety Regulations 2017 (Vic) • Prevention of Cruelty to Animals Act 1986 (Vic) • Prevention of Cruelty to Animals Regulations 2019 (Vic)
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Content enquiries	hsw@monash.edu

DOCUMENT HISTORY

Version	Date Approved	Changes made to document
1.0	2026	Administrative changes due to: ● Conversion of Procedure to a HSW Standard ● Transition Procedure out of University Policy Bank on to HSW website