

Biological Resources 	Standard Operating Procedure <b>UQBR SOP 41 – Preparation of Tissue for Histology</b>		Page 1 of 4
	Contact: UQBR Director	Location: UQBR Animal Facilities	Revision: 2

## UQBR SOP 41 – Preparation of Tissue for Histology

### REQUIREMENT:

1. To ensure that the requirements and regulations as set out by the following are met as far as practicable:
  - AEU UQ
  - The Code
  - OGTR
  - Department of Agriculture and Fisheries (DAF)
  - QLD Workplace Health and Safety, and
  - UQ OH&S
2. To standardise practice for all UQBR staff and researchers within UQBR facilities.
3. Annual review is required to maintain best practice and usability of this SOP.

### RESPONSIBILITY:

It is the responsibility of the individual performing animal handling procedures and techniques to ensure they have been assessed as competent.

### Please Note:

This UQ Biological Resources (UQBR) SOP expands upon UQ Animal Ethics Unit SOPs. This document outlines the procedures followed by UQBR and should not be referenced in Animal Ethics Applications.

**No changes or deviations from this SOP are to occur unless the Director of UQBR gives prior authorisation.**

**NB: The use of (\*) indicates this statement is dependent on the facility procedures**

**NB: The use of (\*\*) indicates this statement is dependent on AEC Approvals**

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**OBJECTIVE:**

To describe the procedure for cadaver handling prior to post mortem examination.

**I. EQUIPMENT**

- PPE\*
- Fixative or alternative media solution\*
- Fixative MSDS
- Sealed container
- Disinfectant
- Paper towel
- Dissection equipment

**II. PREPARATION OF EQUIPMENT**

1. If using fixative gently agitate fixative container to spread the concentration gradient
2. Fill container with formalin

**III. PROCEDURE**

Prior to completing this procedure, confirm with Facility Manager and UQBR Veterinarian if a disease investigation protocol provided by a service provider should be performed in preference to the below procedure.

Identify tissue or substance to be investigated– confirm with UQBR Veterinarian where required

**TISSUE HANDLING**

1. Remove tissue from deceased animal – whole animal may be required
2. Place tissue in container with fixative/media and seal the container
3. Label container with the below details:
  - Lab Name
  - Animal details: Strain, DOB, Genotrack # and Ethics Number
  - Date and time of tissue collection and tissue fixing
  - Date of euthanasia/found dead
4. Print a copy of the accompanying UQBR Necropsy Report and keep with sample
5. Prepare sample to send for investigation. Alternatively store tissue within designated facility space

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## EXUDATE/TRANSUDATE/OTHER FLUID COLLECTION TECHNIQUE

1. Identify tissue/fluid for investigation – confirm with UQBR Veterinarian where required
2. Using clean dissection equipment remove tissue/fluid from deceased animal
3. Place in container and seal the container
4. Label container with the below details:
  - Lab Name
  - Animal details: Strain, DOB, Genotrack # and Ethics Number
  - Date of tissue collection and tissue fixing
5. Print a copy of the accompanying UQBR Necropsy Report and keep with sample
6. Prepare sample to send for investigation. Alternatively store tissue within designated facility space.  
Note that refrigeration or freezing of this sample may be required

## IV. CONSIDERATIONS

- Further investigation may be required following post mortem examination
- Histological samples should be kept to aid in future investigations e.g. if recurrent lesions/disease processes are observed from one cohort of animals
- Tissue specimens should be placed in the fixative as soon as possible after removal from the animal
- A fixative volume of 20 times the tissue volume is recommended to achieve quality fixation
- Using a standard fixative protocol is important to decrease interpretation problems and increase usefulness of tissue

## V. SAFETY

1. All accidents, injury or near misses are to be reported immediately to the Facility Manager and recorded on a UQ OHS Incident Report Form.
2. Splash back into the face or eyes is a risk when performing this task. Protective visors or safety goggles must be worn where the risk assessment specifies this
3. Disinfectants can be hazardous and must be correctly labelled
4. In the event of a spill follow the facility emergency spill procedures
5. Ensure you have read the risk assessment and SDS for the disinfectant you are using

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## VI. REFERENCES

1. Australian code for the care and use of animals for scientific purposes (8<sup>th</sup> Edition, NHMRC 2013): <https://www.nhmrc.gov.au/guidelines/publications/ea28>
2. Code of Practice for the Housing and Care of Laboratory Mice, Rats, Guinea Pigs and Rabbits (DEPI, Vic 2004): <http://www.depi.vic.gov.au/agriculture-and-food/animal-health-and-welfare/animal-welfare/animal-welfare-legislation/victorian-codes-of-practice-for-animal-welfare/code-of-practice-for-the-housing-and-care-of-laboratory-mice,-rats,-guinea-pigs-and-rabbits>
3. Department of Agriculture and Fisheries (DAF): <http://www.daf.qld.gov.au/>
4. Guidelines to promote the wellbeing of animals used for scientific purposes (NHMRC, 2008): [https://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/ea18.pdf](https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/ea18.pdf)
5. OGTR PC2 work requirements and regulations: <http://www.ogtr.gov.au>
6. QLD WH&S Act 2011: <https://www.worksafe.qld.gov.au/laws-and-compliance/workplace-health-and-safety-laws/laws-and-legislation/work-health-and-safety-act-2011>
7. UQ Animal Ethics Unit SOPs: <http://www.uq.edu.au/research/integrity-compliance/standard-operating-procedures-sops>
8. UQ OHS Unit: <http://www.uq.edu.au/ohs/>
9. UQ OHS Incident Report Form: <http://www.uq.edu.au/ohs/index.html?page=141331>
10. UQBR SOPs: <V:UQBR/SOPs/Common/UQBR SOPs> and <http://biological-resources.uq.edu.au/secure/uqbr-sops>

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