Animal Care Services
Standard Operating Procedures, general policies and guidelines

ADMINISTRATIVE - ANIMAL ETHICS APPLICATION PROCESS

1. Research groups must contact the Facility Technician in Charge or Senior Technician and complete a pre-submission information form which is forwarded to the Manager Animal Care Services for review and prior to final Animal Ethics Committee application signature.

2. Conditions of Manager Animal Care Services Signature:
   - Arrangements and agreement made for Chief Investigator and School to pay any recoverable costs.
   - Issues of contract, intellectual property, student supervision, security and facility access discussed and agreed.
   - Issues of general animal health and welfare discussed.
   - Issues of specialist veterinary care and requirements discussed including
     - Analgesia
     - Anaesthesia
     - Post-operative care
   - Issues of import and specialised housing conditions discussed and agreed.
   - Changes to, or requirement for, Standard Operating Procedures (SOPS).
   - Establishment of Facility space, operational capability and general housing and husbandry including technical involvement of Animal Care Service staff.
   - Applications for any necessary licenses, permits and approvals in process.
   - Off-site responsibilities (see below).

3. For the purposes of the Animal Ethics Committee application, Animal Care Service senior staff can sign in the Manager Animal Care Service absence with Manager Animal Care Service confirming through countersigning upon return. Nominal approval can be given through acknowledged email receipt of application/amendment to Animal Ethics Office secretary.

4. Communication Policy:
   To communicate to the Animal Ethics Committee at the earliest opportunity any animal health or welfare issue noticed or brought to the attention of Animal Care Service staff or management. To include at the earliest opportunity Chief and Principal Investigators and responsible animal monitors into correspondence regarding animal health and care issues originated by Animal Care Service staff or management.
5. **Unexpected Death or Adverse Incident:**
All animal deaths must be recorded and informed to the Animal Ethics Committee. Deaths or adverse incidents as noted by the Animal Care Service will be referred to the Animal Ethics Office for further action. The Manager Animal Care Service reserves the right to determine the involvement of any process or biological agent that may affect facility operations in any unexpected or adverse incident.

6. All persons entering animal holding facilities or facility support areas must be inducted into the facility and conversant with issues regarding security, safety, laboratory procedures, gene technology and quarantine. A record of competency and induction will be maintained by Animal Care Service.

7. For security and recording of animal monitoring as per Animal Ethics Committee approval conditions, CARDEX swipe access must be recorded for each person entry. ‘Tailgating’ entry is contrary to proper facility access procedures. In some facilities there will be video camera image capture and storage which can be made available to UWA security as required.

8. Buildings are constructed to Australian Design standards AS/NZS 2243.3 (Microbiological Aspects and Containment Facilities dealing with physical containment). Furthermore, animal holding facilities are designed and consistent with physical containment conditions ranging from PC-1 to PC-3. Location and conduct of work involving quarantine material, infectious material or genetically modified material in *in vivo* studies need to be discussed with the Manager Animal Care Service and relevant compliant housing conditions determined.

9. Carriage of personal mobile phones and ID cards: ID (Cardax) cards must be carried at all times. The cards must be surface decontaminated with 70% ethanol or ClO₂ solution. Carriage and use of personal mobile phones needs to be discussed with the facility Technician in Charge, however their use within animal holding areas is discouraged in preference to use of existing facility telephone. Identification cards and communication devices should be contained within a clear zip lock plastic bag.

10. The use of off-site facilities or premises where there is no direct Manager Animal Care Service responsibility still requires discussion with the Manager Animal Care Services. This is to ensure that appropriate risks and liabilities are acknowledged and that any obligation to check and release animals for transport into UWA facilities has been properly arranged.

11. It is the responsibility of the research group to rigorously monitor their animals according to Animal Ethics Committee approved monitoring regimes. Animal Care Service staff will provide a checking service of the animals (feed, bedding, water, general condition) within the facilities. Regardless of any findings or reports by Animal Care Service staff, the research group must inform the Animal Ethics Committee of any adverse incident, unexpected death or matters which impact directly on the health and welfare of their animals.
12. Animal Care Service recovers the costs of animal agistment and animal technician procedural charges. Internal users of the facilities are charged at a greatly subsidised rate. These charges can be found at http://www.research.uwa.edu.au/staff/animals/care-facilities/price

Specialist equipment or assistance will need to be negotiated with the Manager Animal Care Service prior to commencement of project.

13. The use of any image capturing devices within Animal Care Service facilities needs the Manager Animal Care Service written approval. Images identifying Animal Care Service staff is not permitted.

**ANIMAL RELATED**

14. All agistment charges are renewed annually subject to approval from the Board Animal Facilities.

15. Animals must be received by Animal Care Service staff and released onto research project work subject to acceptable animal condition upon receipt and as detailed in Animal Ethics Committee approval. In the event of poor animal condition or animals otherwise unsuitable for receipt, further arrangements will be made by the Manager Animal Care Service to rectify. Researchers will be required to corroborate condition assessment as required. Issues attributable to source of supply cannot be sustained after release of the animal onto the specific project.

16. Acclimatisation periods for animals must be discussed and approved by the Manager Animal Care Service prior to project acceptance. Specific animal acclimatisation periods, animal pre-conditioning and suitability for inclusion onto experimental project need to be specifically approved. Once animals are released onto project, they are the sole responsibility of the project Chief Investigator. Receipt of animals must be recorded as acceptable by both facility Technician in Charge and Principal Investigator.

17. Under exceptional circumstances, laboratory animals may be brought in and held under the Manager Animal Care Service approval prior to resolution of project specific approval # by Animal Ethics Committee and for welfare considerations of the animals. **Conditions:** Animal Ethics Committee amendment or full application is submitted to next available Animal Ethics Committee meeting, pre-submission form is completed prior to acceptance, housing of the animals for more than 6 months under this arrangement by express written approval of the Animal Ethics Committee.

18. The Animal Care Service reserves the right, in consultation with research Chief Investigator/Principal Investigator, to sample animals for reasons of Quality Assurance (QA) and disease surveillance.
19. Animals must be euthanased in accordance with Animal Ethics Committee approval. The method of euthanasia must include consideration of numbers of animals, sedation, euthanasia method and confirmation of animal death. The use of CO₂ must be in accordance with (interim) guidelines issued by NH&MRC 2008 and consistent with project specific Animal Ethics Committee approval.

20. Potential or observed phenotype changes as a direct result of targeted genetic manipulation must be discussed with the Manager Animal Care Service. Changes in life expectancy, changes in phenotype which have welfare implications, immune status change, physiological changes and developmental alterations impacting on normal behaviours, pre-disposition to commensal infections and responses to normal environmental conditions, must be noted and recorded.

http://www.nhmrc.gov.au

21. The use of infectious, replicative or genetically modified materials must be discussed with the Manager Animal Care Service and may require Institutional Biosafety Committee (IBC) approval prior to commencement of project. The location of the project must be consistent with the operation capabilities of the Animal Facility.

22. Animal Care Service currently has a mouse ‘Maintained Strains Area’ in which health testing and surveillance reports against a list of micro-organisms. Consistent with Animal Resource Centre, some of these micro-organisms are considered opportunistic and their presence considered significant under special circumstances, i.e. immunodeficient. Research projects involving the use of animals in which particular micro-organisms may compromise experimental results or variability or interfere with the welfare of the animal and given the contemporary understanding of the possible role these agents may have in the experimental model, must be specifically discussed with the Manager Animal Care Service.

23. Checking and monitoring:

All Animals under the care of the Animal Care Service are checked for food and water and the cages are visually scanned at least daily. Animals are handled on cage change days and checked for general health. Animals held by Animal Care Service under an Animal Ethics Committee approval are checked in the same way unless there is specific reference to monitoring regimes. It is the responsibility of the Animal Ethics Committee approved Chief Investigator to ensure animal monitoring is performed and consistent with approval conditions.

24. Mice are fed an autoclaved laboratory mouse feed sourced from a local supplier. Alternate, modified or experimental diets must be approved by Animal Ethics Committee and must be formulated such that they can be brought into the animal facilities consistent with facility material entry requirements.
FACILITY

25. Animal Care Services reserves the right to change where animals are held for welfare, health or other considerations.

26. **Gloves, overshoes, masks, gowns and hairnets.**
   These are worn for protection of the animals and/or for the protection of users as the facility zone necessitates. The protection provided is not absolute but heightens awareness of good work practices and minimises cross contamination. Access to all areas has an overshoe requirement. All personnel must be inducted into the relevant work areas.

27. Scheduled and prescription drugs are held under license or approval by the Manager Animal Care Service and can be administered by Facility Technician in Charge as appropriate. Storage and release of these materials for in vivo use is strictly in accordance with conditions of the approval or license.

HOUSING CONDITIONS FOR MICE AND RATS

28. **Standard Barrier Housing** – Animals sourced as Specific Pathogen Free (SPF) and maintained by routine husbandry procedures as SPF in the Pre-Clinical Facility (PCF), Biomedical Research Facility (BRF) Zone J.
   - Filter top caging
   - Acidified water
   - Autoclaved food
   - High temperature washed cages
   - Autoclaved bedding (Aspen or corn cob)
   - Weekly cage change

   **Intermediate barrier housed.** [BRF Zones B, C, M-block AQIS PC-2 OGTR PC-2]
   - As above but cages in IVC rack
   - All caging autoclaved

   **Enhanced Barrier Housed.** BRF Zone A, PC-3
   - Restricted entry
   - Cage change under cage change station
   - All materials autoclaved

29. Breeding lines will be maintained as specific commensal/opportunistic micro-organism free and specific pathogen free. Specific Pathogen Free animals will be accepted for breeding colony establishment if there is no anticipated compromise by commensal organisms. Consideration needs to be made with regards to possible impact of normal microbial agents on individual strains of animals.
30. Animals will be accepted from OzGene and Animal Resource Centre (ARC) as Specific Pathogen Free into BRF Zones B, C, Q and Infectious by the Animal Care Service as discussed with the Manager Animal Care Service and Technician in Charge. Animals for internal breeding and supply will be housed in Zone A or as determined by the Manager Animal Care Service.

31. GPS location: For animal trapping and other animal based Animal Ethics Committee approved projects external to physical Animal Care Service facilities on the Crawley or Shenton Park sites, GPS location points for the traps/site ≤ 10m and in relation to either the Large Animal Facility or Shenton Park Field Station Office to be included. Trap runs should include both start and finish coordinates with number of traps and inter-trap distances recorded.

HEALTH TESTING AND DISEASE SURVEILLANCE

32. Each area housing laboratory animals will have sentinel animals assigned to the area. At regular intervals they will be sampled for the presence of specific pathogens or sent from the facility for whole animal health testing. These animals are subsequently replaced.

33. Consistent with health and welfare principles for laboratory mice, all mouse holdings are subject to a health surveillance programme. This programme should be as consistent as practicable with that being run by the Animal Resource Centre and The Jackson Laboratories. Animals sourced by the Animal Care Service will be housed within the animal facilities and used as sentinels (serology and other fluids as well as whole animal testing) for the purposes of detecting pathogens and other disease within the Animal Care Facilities. The major assessment of health status will be by an independent serological testing agency. Once confirmed, the results will be made available to the research community by the Manager Animal Care Service.

34. Pooled serum samples will be collected and an aliquot stored by the Animal Care Service indefinitely. Serum samples will be sent to Murine Virus Monitoring Service (IMVS – SAPath 1600/E) for serological assessment against 3 monthly serology testing. www.imvs.sa.gov.au

Monthly monitoring for Murine Hepatitis Virus is performed by PathWest (NATA/RCPA accredited), at the QE11 Medical Centre, Shenton Park. www.pathwest.com.au

35. Sentinel animals will be housed as a minimum group of 3 animals in which animals destined for whole animal testing are replaced and sentinel caging consists of bedding material from randomly selected cages from within the facility.

36. Whole animal testing is to occur every 6 months and to include a defined necropsy and pathology report and pathogen detection screen result.
37. In the event of a spurious result or in which serological results do not match any clinical signs or other indicators of infections, a further set of serum samples will be collected and along with an aliquot of the initial reference sample will be resent to the testing laboratory and to a second laboratory.

38. Biological samples and animals on research study must be made available for pathogen assessment as required and directed by the Manager Animal Care Service.

39. Animals held in non-OGTR regulated areas or from animals that are not subject to infectious OGTR regulated dealings will have MHV PCR analysis performed by way of faeces collection. These results will be confirmed as required by accredited detection services.

40. Animals sourced from other than the Animal Resource Centre will need to be assessed by the Animal Care Service prior to any agreement to accept them. The assessment process will need to include the provision to the Animal Care Service of relevant information relating to the status of the source facility and the animals will be subject to health testing and screening on arrival into Animal Care Services.