THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Policy on the Care and Use of Animals in Teaching and Research

[First approved by the Research Committee of Senate on 17 April 2023;
Updates approved on 13 May 2025]

At the Hong Kong University of Science and Technology (HKUST), animal-based research makes critical contributions to the understanding and treatment of diseases. While we champion the use of non-animal approaches, where viable alternatives are not available, we adhere to the highest standards in animal use and welfare as per the Hong Kong Animals (Control of Experiments) Ordinance (Cap. 340), Code of Practice for Care and Use of Animals for Experimental Purposes, and the International Guiding Principles for Biomedical Research Involving Animals.

1. Scope and Application

1.1 This policy delineates the framework on the care and use of all animals in teaching and research governed by the University (hereafter "under the auspices of HKUST"). This covers all animal experimentation, whether funded or unfunded, that is conducted:

(i) By faculty, staff, visiting/affiliated researchers, and students within the course of their employment and/or studies at the University; or

(ii) On HKUST premises or using its facilities.

1.2 This policy should be read in conjunction with the University's Policy on Research Conduct and Integrity, and biological safety guidelines in its Safety and Environmental Protection Manual.

2. Roles and Responsibilities

2.1 The University – is committed to promoting the responsible care and use of animals in teaching and research and the utilization of non-animal alternatives wherever possible, through appropriate resources, facilities, and training opportunities.

2.2 The Animal Ethics Committee (AEC), a sub-committee of the Committee on Research Practices (CRP) – is responsible for ensuring ethical animal care and use under the auspices of the University, including but not limited to the review and monitoring of related research practices, investigation of complaints, and policy recommendations.

2.3 The Laboratory Animal Facility (LAF(CWB)) – is responsible for animal acquisition, holding, husbandry, veterinary services/consultation, animal use training, monitoring of protocol compliance and animal welfare, and carcass disposal. Designated persons from LAF(CWB)

have the right to access all animals housed/used on HKUST premises and their records to assure their health and well-being and to provide intervention where necessary.

2.4 The Health, Safety and Environment Office (HSEO) – offers occupational health consultation and medical surveillance for personnel with substantial animal contact, and support in biological safety practices and compliance monitoring.

2.5 Heads of departments/divisions – should ensure their staff/students observe this policy and provide oversight of teaching and research involving animals in their departments/divisions.

2.6 Researchers engaged in animal-based research (hereafter "animal users") – are expected to familiarize themselves with this policy and to be responsible for the conduct of their research, including but not limited to complying with relevant legislation, undertaking necessary training, proactively upholding the welfare of animals in their care, keeping abreast of the latest methodologies to minimize animal discomfort, pain and distress, and reporting concerns on treatment of animals in a timely manner.

2.7 Principal Investigators (PIs)/Research supervisors – in addition to their responsibilities as researchers, are responsible for ensuring team members undertake relevant training, meet their legal, ethical and regulatory obligations set out in this policy, as well as safety standards in the procedures performed by members.

3. Legal Requirements

3.1 A valid and relevant license under the Animal (Control of Experiments) Ordinance (Cap. 340) is required for all animal users performing experiments on living vertebrates. The Animal (Control of Experiments) Regulations (Cap. 340A) provide that each license specifies:

(i) The type(s) of experiment;
(ii) The type(s) of animal; and
(iii) Location(s) where the experiment will be conducted.

3.2 Special endorsements or permits are required if animal experimentation is conducted:

(i) for the purpose of attaining manual skills;
(ii) for the purpose of illustrating lectures;
(iii) without administering anesthetics or killing the animal.

3.3 Animal users can only perform experiments covered by their license specifications. A separate license is required for a different procedure, species, and/or location.

3.4 As stipulated by the Animal (Control of Experiments) Regulations (Cap. 340A), licensees are required to keep records of all experiments (Form 6) and submit an annual return (Form 7) to the Department of Health.

3.5 Animal users must also comply with the Prevention of Cruelty to Animals Ordinance (Cap. 169) and other applicable legislation, including those related to the use of hazardous substances/hazards.

4. Protocol Application and Review

4.1 All teaching and research experiments under the auspices of HKUST involving living vertebrates should be reviewed and approved by AEC [1] prior to commencement, ensuring justified use, humane care, and adherence to ethical principles. Carrying out procedures without a valid Animal Experiment Protocol (AEP) and/or prior approval of amendment(s) to the AEP is unacceptable under any circumstances, and will be referred to AEC.

4.2 Where collaboration with other institutions is involved, approval should be sought from AEC when:

(i) The PI or Project Coordinator (PC) is from HKUST; or

(ii) Procedures are conducted at HKUST.

In all other cases, HKUST animal users must ensure that ethics approval has been obtained from the host institution.

4.3 Animal-based research involving safety hazards also requires approval from the Safety Panel.

4.4 For detailed guidance, see Research Compliance Review Procedures and Research Integrity Resource Portal.

5. Post-Approval Responsibilities

5.1 PIs are accountable for ensuring experiments are conducted in accordance with approved AEPs, and initiating remedial action in the event of deviation. Incidences of non-compliance, adverse events and/or unexpected outcomes should be reported to

[1] Except experiments undertaken at Shenzhen Research Institute, which should be reviewed by the Institute's 实验动物管理和使用委员会 (IACUC).

AEC in a timely manner. If changes to the approved AEP become necessary, prior approval of AEP amendments must be obtained before further work can commence.

5.2 Post-approval monitoring serves to confirm that animal work is being conducted as approved in AEPs and to facilitate regulatory compliance, including but not limited to facility inspections, observations of animals, and procedures. While AEC has the right to inspect all areas of the University where animals are housed and/or used at any time and engage external specialists in such inspections, full authority has been delegated to designated personnel of LAF(CWB) to access these areas for checking of protocol compliance and animal welfare. Animal users should make available a copy of the relevant approved AEP(s) at animal holding and experimentation locations to facilitate inspections.

5.3 Approved AEPs are valid for up to four years. PIs will be notified before their AEP(s) expire(s). Upon expiration, all related work must be ceased. If procedures need to commence or continue beyond the validity period, an AEP extension should be requested at least four weeks in advance, subject to review and approval by AEC.

5.4 An annual report must be submitted for valid AEPs; failing to do so may result in an automatic termination of the relevant AEP. A completion report should also be filed when the AEP has been completed.

5.5 Failure to comply with legal requirements and standards set out in this policy may result in project suspension, disciplinary action and/or criminal prosecution.

6. Occupational Health and Medical Surveillance

6.1 The University is committed to safeguarding the health and safety of animal users via the occupational health and medical surveillance program. The program is designed to minimize risks of animal-related allergies, illnesses, and injuries, and animal users' exposure to hazardous substances.

6.2 All personnel whose work involves direct/indirect contact with animals should enroll in the program by

(i) Completing training in Biological Safety (MC06); and

(ii) Applying for an occupational health assessment from HSEO.

7. Animal Use Training

7.1 Animal users should familiarize themselves with the principles of animal welfare, regulatory requirements, and possess competency in the procedures they perform. Periodic retraining should be undertaken to refresh understanding and skills.

7.2 Those engaged directly in animal experimentation must undertake species-specific training, such as restraint, handling, injections, and euthanasia techniques via the LAF(CWB) or satellite facilities.

7.3 Those using hazardous agents, such as physical, chemical, radiological or microbiological agents in animal-related work should pass relevant safety training via HSEO.

8. Animal Care and Use Principles

8.1 The principles encompassed in the "3Rs" underpin all animal-based teaching and research at the University:

(i) Replace animal use wherever alternatives are viable;

(ii) Reduce the number of animals used and avoid unnecessary duplication of experiments;

(iii) Refine procedures to minimize animal suffering in concert with scientific rigor.

8.2 Unless special approval is granted by AEC, living vertebrates should only be sourced via and housed in LAF(CWB). Non-standard husbandry procedures, such as physical restraint, special housing conditions, restrictions on food and/or fluid, also require AEC approval in advance of any such procedures being carried out.

8.3 Surgical procedures and associated details (e.g. pre- and post-operative care, intra-operative monitoring) should be described and justified for AEC's prior approval. Adequate analgesia or anesthesia should be performed for animals undergoing potentially painful procedures. Where euthanasia is necessary, the animals should be terminated with approved methods that ensure immediate death.

8.4 Humane endpoints should be clearly defined and applied wherever possible. Animals should be promptly euthanized or treated to avoid unnecessary pain or distress.

8.5 Animal users have the responsibility to monitor the well-being of animals in their charge, and seek veterinary assistance immediately in case of animal health concerns, such as pain, distress, morbidity, or mortality.

8.6 Pharmaceutical-grade compounds should be adopted if available and suitable for the research purpose. Any use of non-pharmaceutical-grade chemicals or substances requires AEC's prior approval.

8.7 Animal carcasses, tissues, and associated waste should be disposed of appropriately.

8.8 Proper records and documentation should be maintained, including but not limited to approved AEPs, training records of animal users, records on animal acquisition, types and numbers used, health, and procedures performed.

9. Complaints

Any concerns related to animal welfare and use should be brought to the attention of AEC, and will be investigated and addressed in a timely and confidential manner per CRP's Procedures for Handling Alleged Non-compliance and Complaints.

10. Contact

Enquiries may be directed to AEC at aec@ust.hk.

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