# [http://t2.gstatic.com/images?q=tbn:ANd9GcTYdDkkaFORnZAkuTKtAluJ-rUFbho79Cgdis9zHsGi6c9ejA02](http://www.google.com.my/imgres?imgurl=http://mushroomresearchcenter.net63.net/logo/UPM.jpg&imgrefurl=http://mushroomresearchcenter.net63.net/partners.html&h=236&w=500&sz=33&tbnid=-j_6HaVO2vx-kM:&tbnh=62&tbnw=132&prev=/search?q=upm+logo&tbm=isch&tbo=u&zoom=1&q=upm+logo&docid=7dWSFiko9-6gBM&hl=en&sa=X&ei=v_2xT_f7Be2SiQfQgKX2CA&ved=0CHUQ9QEwBg&dur=4301) **UNIVERSITI PUTRA MALAYSIA**

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)**

**Application for Ethics Approval for Teaching/Display Involving Animals**

1. Please complete the application form in accordance to the UPM Guidelines. Incomplete application form will be returned to the applicant resulting in delay in the granting of approval.
2. Application must be word-processed or typewritten.
3. Following endorsement by the Dean/Director/Deputy Dean/Deputy Director,

submit one softcopy and three hardcopies to:

The Secretariat

Institutional Animal Care and Use Committee

c/o Research Management Centre

Level 4, Bangunan Canselori Putra (off Lebuh Silikon)

Office of the Deputy Vice Chancellor (Research and Innovation)

Universiti Putra Malaysia

Attention to: Ms. Nor Ellia Abd Ajis

Email: n\_ellia@upm.edu.my

Phone: 03-8947 1244

Fax: 03-8947 1634

**GENERAL INFORMATION**

* The Coordinator/Lecturer is responsible to ensure that all facets of animal care and use meet the requirements of the **UPM POLICY AND CODE OF PRACTICE FOR THE CARE AND USE OF ANIMAL FOR SCIENTIFIC PURPOSES**.
* The Code of Practice embodies the principles of the 3R’s which are:
* Reduction of animal use
* Replacement of animal use
* Refinement of animal use

It is important to consider these principles when designing and carrying out teaching exercise or displays.

* The application should be presented in a way that explain in detail the care and use of animals from the beginning to the completion of a teaching exercise/display. This would include factors that will have an impact on animals such as housing (type, duration, opportunity for social interaction) as well as all treatments (substances, dose rates, routes, volumes, anaesthetics, surgical procedures etc.) and the expected effects. Flow charts or sequence of event tables are often of assistance.
* The application should also explain and justify clearly the choice of animals, the species, the number of animals and the qualifications of personnel undertaking the teaching exercise.

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**

**Universiti Putra Malaysia**

***Animal Utilisation Protocol – Teaching / Display***

*Please attach the course outline, laboratory exercise notes or lab manual(s) and relevant information pertaining to animal care and use.*

***Endorsed by Dean/Director/ Deputy Dean/Deputy Director:***

**COURSE TITLE AND CODE:**

**(*Must include the animal species to be used in the course or display)***

**Is this course/display offered only once or yearly?**

**Once: Date: ........................**

**Yearly: Number of session / semester: ................. Semester: .......................................**

1. **PERSONNEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Institution/Department** | **Phone Number/e-mail** | **Signature** |
| **Course Coordinator, Lecturer or Instructor:** |  |  |  |
|  |  |  |  |
| **Other personnel:**  *Please indicate role (technical staff, demonstrator, GRA)* |  |  |  |
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|  |  |  |  |
| **Attending Veterinarian:**  *(Please also read and sign on Appendix 1)* |  |  |  |
|  |  |  |  |

**2. Animal Use**

**Classification (check one):**

[ ] ***Acute*** - utilising an animal for a brief period (less than 24 hrs.), followed by euthanasia or return of the animal to source, **or** humanely killing an animal upon receipt or after a brief housing period during which time no manipulations other than standard management procedures are performed, i.e. anaesthetized without recovery, and euthanised, etc.

[ ] ***Chronic*** - maintaining the animal for periods longer than 24 hrs and performing repeated procedures or other procedures on the same animal during this time.

**Category of Invasiveness (check one):**

|  |  |
| --- | --- |
| **A** | Involve either no living materials or use of no living materials, or use of plants, bacteria, protozoa, invertebrates  - studies on tissues obtained from autopsy, slaughterhouse, embryonated egg THIS CATEGORY DOES NOT NEED AN AUP |
| **[ ] B** | Teaching exercise on vertebrates species, expected to produce little or no discomfort  -mere restraint for blood sampling, injection of harmless substance, physical examination,  - teaching exercise on completely anaesthetised animals which do not regain consciousness, food/water deprivation for few hours, standard methods of euthanasia (anaesthetic overdose or sedation/light anaesthesia follow by decapitation) |
| **[ ] C** | Teaching exercise that involve some minor pain/discomfort for short duration to vertebrate species  -exposure of blood vessels, implant chronic catheters, behavioural study involving short-term stressful restraint, surgery under anaesthesia resulting in minor post-surgical discomfort |
| **[ ] D** | Teaching exercise that involve significant but unavoidable stress or pain to vertebrate species  -deliberate induction of behavioural stress, major surgical procedure resulting in significant post-operative discomfort, induction of anatomical/physiological deficit resulting in pain/distress |
| **[ ] E** | Teaching exercise that involve inflicting severe pain near, at, or above the pain tolerance threshold of unanaesthetized, conscious animals |

**Please comment briefly on:**

1. Justification on the use of live animals or animal preparations over a demonstration, film, videotape, computer simulation or other model.

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2. How you are maximizing the educational gain from the animals used.

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3. The on-site supervision provided for the students/participants working on animals during the teaching exercise.

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4. The expected number of students/participants.

…………………………………………………………………………………..

5. The number of students/participants per animal or group of animals.

…………………………………………………………………………………….

6. The participant / instructor ratio.

……………………………………………………………………………………..

**3. ANIMAL CARE & HUSBANDRY**

|  |
| --- |
| 1. **Specify provisions of basic requirements for each species/strain of animals used**   **(For guide on species care and husbandry requirements, please refer to the UPM Code of practice for the Care and Use of Animals for Scientific Purposes at http://www.rmc.upm.edu.my/dokumen/PTPPY1\_92272\_upm\_code\_of\_practice.pdf).** |
| **Species 1**:\_\_\_\_\_\_\_\_\_\_\_\_\_  i. Caging: [ ] Plastic [ ] Metal [ ] Others-specify\_\_\_\_\_\_\_\_\_\_\_\_\_  ii. Stocking density: \_\_\_\_\_\_\_animal per \_\_\_\_\_\_\_\_\_\_\_\_\_(cage/pen/paddock dimension or floor space)  iii. Flooring/Bedding:[ ] Wood slatted [ ] Wire mesh [ ] Wood shaving [ ] Newspaper  [ ] Others\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  iv. Temperature of room: [ ] Not regulated [ ] Regulated at \_\_\_\_\_\_\_  v. Ventilation: [ ] Not regulated [ ] Regulated  vi. Feed: [ ] Custom-formulated [ ] Commercial – name of manufacturer\_\_\_\_\_\_\_\_\_\_\_\_\_\_  vii. Water: Source\_\_\_\_\_\_\_\_\_\_\_\_\_ Delivery: [ ] Bottle [ ] Water bowl  [ ] Others\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Species 2**:\_\_\_\_\_\_\_\_\_\_\_\_\_  (please copy items above ) |

1. **Specify the frequency of the following activities (if applicable) and who will be performing**

|  |  |  |
| --- | --- | --- |
| **Activity** | **Frequency** | **Performed by (name)** |
| Feeding |  |  |
| Changing water bottle/bowl |  |  |
| Changing bedding/litter tray |  |  |
| Changing/cleaning cage/pen |  |  |

|  |
| --- |
| **c) Specify any enrichment provisions, i.e. specific materials** *(e.g tissue paper)***, space, objects** *(e.g. cardboard shelter, cardboard tube)* **if any.** |
|  |

**4. SOURCE**

**Indicate the source or supplier:**

[ ] UPM Animal Resource Unit [ ] Client owned [ ] Client Donated [ ] UVH Resident Animal

[ ] Wildlife / field studies\* [ ] UPM Herd / Flock\* [ ] Local suppliers/farms\*)

[ ] Other institution(s)\* [ ] Import\*(attach health certificate & import permit)

[ ] Transfer from other researcher/ research\* (AUP No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

\* For the above, please provide details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Species** | **Source/Supplier** | **Address/Location** | **Ph. Number** | **Mode of Transportation** |
|  |  |  |  |  |
|  |  |  |  |  |
|  | If you need more space for animals involved, please insert new rows |  |  |  |

**5. PROCEDURES**

| **a)** **Using a FLOW DIAGRAM, describe how the animals will be used (sequence of procedures that the animal will undergo) in this exercise. In cases of surgical procedures, description of the following should be included; patient preparation before surgery, pain and distress management, frequency of monitoring during and post surgery as well as technical description of surgical procedures. Please provide references where appropriate.** |
| --- |
|  |

1. **List *all* procedures, manipulations, and/or measurements that will be performed on the animals. Indicate what measures will be taken to alleviate or minimize any pain, distress or discomfort. Include post-operative care, specify analgesics & anaesthetics with dosages and routes of administration, and special procedures used.**

| **PROCEDURES**  Including physical or chemical restraint, blood sampling, injection of compounds, e.g. anaesthetics, analgesics antibiotics, chemicals, etc. | | **Frequency** (if same procedure is repeated in the same individual ) | **No. of animals involved** | **(B-E)\***  State of invasive-ness | **Compound name, dosage & route**  (if applicable) |
| --- | --- | --- | --- | --- | --- |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
|  | If you need more space for animals involved, please insert new rows |  |  |  |  |

\*Indicate the Category of Invasiveness for each procedure listed.

1. **List ALL the individuals who will carry out the above procedures. Provide their technical qualifications and relevant experience in performing these procedures**.

|  |  |  |
| --- | --- | --- |
| **Name** | **Procedure(s) to be** p**erformed**  (list the corresponding procedure number as listed in table 5b above e.g. 1, 2, 3) | **Qualifications/experience with these procedures** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | If you need more space, please insert new rows |

| **d) Specify the criteria used to assess the level of anaesthesia required for invasive procedures (if relevant)** |
| --- |
| [ ] Respiratory rate [ ] Heart rate [ ] Corneal reflex [ ] Toe pinch [ ] Tail pinch  [ ] Response to procedures [ ] Others – specify: |
| **e) Specify the methods/criteria for monitoring the condition/level of pain and distress of the animals following the above listed procedures. (Please attach Assessment Sheet if this is available)** |
| [ ] Loss of appetite [ ] Loss of weight [ ] Restlessness [ ] Laboured breathing  [ ] Loss/reduce mobility [ ] Abnormal resting posture [ ] Unresponsiveness  [ ] Failure to show natural inquisitiveness [ ] Failure to groom/unkempt appearance  [ ] Red stains around eyes of rats  [ ] Licking, biting, scratching, shaking of affected area [ ] Guarding/protecting painful area  [ ] Others – specify: |
| **f) Specify frequency of animal observations:**  1. Daily husbandry routine: \_\_\_\_\_\_times per hour / day / week \**(delete where not relevant)*  2. Following teaching exercise procedures: \_\_\_\_\_\_times per hour / day / week \**(deletel where not relevant)* |

**6.** **ANIMAL USE ENDPOINT**

When teaching exercise produce animals that may become ill, it is necessary to define an endpoint to ensure that an animal’s discomfort, pain and/or distress is terminated, minimised or reduced.

| **a) Indicate any clinical conditions or abnormalities *expected or that could arise* as a result of the proposed teaching exercise (e.g. behavioural changes such as increased grooming, vocalization or postural changes, or physical abnormalities such as anorexia, dehydration, diarrhoea, etc.)** |
| --- |
|  |
| **b) In terms of species-specific behavioural changes and physiological signs, list the criteria that will be used to trigger the decision to remove an animal from the teaching exercise, or to terminate the teaching exercise.** |
|  |

**7. DISPOSAL OF ANIMALS**

|  |  |  |
| --- | --- | --- |
| **SPECIES,**  **quantity** | **TO BE RETAINED/ SOLD TO/ DONATED TO/ TRANSFERRED TO/ ADOPTED BY *(****specify location or to/by whom)* | **TO BE EUTHANISED** *(specify method/drug/dose. If a physical method of euthanasia is to be used i.e. cervical dislocation, justify its use)*  **CARCASS DISPOSAL** (*specify method)* |
|  |  |  |
|  |  |  |

**8. HAZARDS TO STAFF, STUDENTS & ANIMALS**

|  |  |
| --- | --- |
| **TYPE:** | **SPECIFY AGENT, DOSAGE, ROUTE, FREQUENCY** |
| Radio-Isotope |  |
| Carcinogen |  |
| Dangerous chemical |  |
| Contagious pathogen to  humans [ ] animals [ ] |  |
| Recombinant DNA/RNA |  |
| Other (e.g. GMO, electroshock) |  |
| **Special animal care or containment procedure required because of the hazard(s) involved is/are:** | |

Use of recombinant DNA/RNA/GMO needs to apply for Institutional Biosecurity Committee’s approval.

**9. EMERGENCY VETERINARY CARE**

Is routine veterinary care appropriate for animals in this teaching exercise? **[ ] YES [ ] NO**

If NO, attach specific instructions in case an emergency should arise.

*In the event of an animal health emergency, if the personnel LISTED IN SECTION 1 COULD NOT BE CONTACTED, the decision of a Clinical Veterinarian APPOINTED BY THE IACUC will be final.*

**10. INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE APPROVAL**

Upon approval, a protocol number will be assigned. This Animal Utilisation Protocol is valid for the duration of 3 years if the teaching exercise is carried out yearly. If the teaching exercise or display is carried out once, the Animal Utilisation Protocol is valid for that purpose only.

**DECLARATION**

This Animal Utilisation Protocol accurately describes all the proposed animal use and it is understood that these animals will be used only as described in this Protocol. It will be kept current and will be modified only after obtaining the approval of the Institutional Animal Care and Use Committee.

All procedures will be carried out by personnel listed in section 5c who are trained and competent in using approved techniques.

All animals used in this teaching project or display will be cared for in accordance with

The UPM Code for the Care and Use of Animals for Scientific Purpose.

**I have read and understood the above declaration**.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Coordinator/Lecturer/Instructor

Name:

Date:

Faculty/Department: ………………………………………………………………………

Course Name & Code: ……………………………………………………………………

**Appendix 1**

**Responsibilities of the Attending Veterinarian (AV)**

1. The Attending Veterinarian (AV) must be persons with qualifications in veterinary science who are licensed by the Malaysian Veterinary Council and possess a current/valid Annual Practicing Certificate (APC).
2. The primary focus of the veterinarian is to oversee the well-being and clinical care of animals used in research, testing and teaching.
3. The responsibility extends to monitoring and promoting animal well-being at all times during animal use and during all phases of the animal’s life. Well-being is determined by considering physical, physiological and behavioural indicators.
4. The AV should provide guidance to investigators and all personnel involved in the care and use of animals to ensure appropriate husbandry, handling, medical treatment, immobilization, sedation, analgesia, anaesthesia and euthanasia.
5. The AV should provide guidance and oversight to surgery and perioperative care involving animals in accordance with current established veterinary medical and nursing procedures.
6. If the AV is on leave or will be otherwise unavailable to provide any general or emergency veterinary care, interim arrangements must be made to ensure that there is always ready access to veterinary care.
7. The AV is expected to carry out daily observation of all animals in the study project to assess their health and well-being. However, the daily observation of animals may be accomplished by someone other than the AV provided that there is a mechanism of direct and frequent communication between the AV and the staff concerned so that timely and accurate information on problems of animal health, behaviour, and well-being is conveyed to the attending veterinarian.

Name of attending veterinarian: ...........................................................

Annual practicing certificate number: ……………………………………..

Signature: ...........................................................................................

Date: ...................................................................................................