**This is an offline template for preparing submission into Tick@Lab’s Animal Experimental Ethics Application Portal.**

**All sections must be completed unless stated.**

**You may download the completed form as a pdf from Tick@lab. A signed copy must be submitted to the AEEC office.**

**In case of discrepancy between the paper version and the online version in respect of all or any part of the contents in the form, the online version shall prevail.**

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# PART I: APPLICATION OUTLINE

## General Information

### Project Title

|  |
| --- |
|  |

### Project Keyword(s)

|  |
| --- |
|  |

### Research Area

Please refer to the “[Research Area List](https://www.orkts.cuhk.edu.hk/images/Research_Classification/200814_research_classification_2nd_revision.pdf)” from the Office of Research and Knowledge Transfer Services. You may provide up to three relevant research areas.

|  |  |  |
| --- | --- | --- |
|  |  |  |

### Protocol Lay Description

Provide a brief lay summary of the proposal that would be understood by a non-scientist. Do not use scientific or biological terms or descriptions that a person on the street would not be able to understand. Please explain any technical terms that have to be included.

|  |
| --- |
|  |

### Experiment Type

Please select which category the experiment falls into.

|  |
| --- |
| Short Term  Long Term  Short Term and Long Term |

(Short term = experiment procedures are to be finished within 24 hours. There is no holding of animals after 24 hours.)

### Project continuation

Is this a continuation of an ongoing or previous approved protocol?

|  |  |
| --- | --- |
| No |  |
| Yes | Protocol number:  Summary of previous work:  List publications resulted from previous protocol: |

### Timetable

|  |  |
| --- | --- |
| Proposed start date: |  |
| Proposed end date: |  |

### Funding and Billing

|  |  |  |
| --- | --- | --- |
| Funding Source | Funding Status | Grant # |
| Others: |  |  |

Optional. Billing information would not affect the approval of AUP. Please note that a billing account must be set up before animal ordering.

|  |  |
| --- | --- |
| Billing Account # | Credit Account# |
|  |  |

# PART II: PERSONNEL

## Personnel

### Principle Investigator (PI)

The Principal Investigator is responsible for all work conducted under this protocol and can edit the information.

|  |  |
| --- | --- |
| Last name | First name |
|  |  |

### Co-Investigation (CO-I)

The Co-Investigators can edit the information in this protocol.

|  |  |  |
| --- | --- | --- |
|  | Last name | First name |
| 1. |  |  |
| 2. |  |  |

### Research Personnel

Research Personnel conduct research procedures using animals under this protocol.

|  |  |  |
| --- | --- | --- |
|  | Last name | First name |
| 1. |  |  |
| 2. |  |  |
| 3. |  |  |
| 4. |  |  |

### Signers

*Signers are required to sign the protocol as assigned by the PI, Co-Investigators or AEEC during the appropriate workflow steps. (\*)*

|  |
| --- |
|  |

### PI Qualifications

*Describe the Principal Investigators Qualifications to perform or oversee this research (\*)*

|  |
| --- |
|  |

### Other staff Qualifications and experience

*Please provide experience and qualifications of all other personnel mentioned in this application (\*)*

|  |
| --- |
|  |

### Personal License

|  |  |  |  |
| --- | --- | --- | --- |
| Licensee | License Number | Issued Date | Expiry Date |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### General AUP training

*Please check if you have the required experience for the research being conducted in this protocol. Please upload the certificates if you have them.*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Training | PI | CO-I1 | CO-I2 | Staff1 | Staff2 | Staff3 | Staff4 |
| Research Ethics: Animal Research Ethics (by ORKTS) |  |  |  |  |  |  |  |
| LASEC induction |  |  |  |  |  |  |  |
| Animal Handling & Techniques (by LASEC) |  |  |  |  |  |  |  |
| Animal welfare (by LASEC) |  |  |  |  |  |  |  |
| Biological Safety (by USO) |  |  |  |  |  |  |  |
| Chemical Safety (by USO) |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

# PART III: Rationale & 3R’s

### Literature Research

Please provide a summary of background and current evidence and key references (<500 words).

|  |
| --- |
|  |

### Rationale for animal use

Explain your rationale for animal use and why this study does not unnecessarily duplicate previous experiments done in this lab and by others, and explain how this project will advance medical/scientific knowledge.

|  |
| --- |
|  |

### Replace

*Please describe where efforts have been made to replace animals with “lower order of animals” alternatives.*

|  |
| --- |
|  |

### Reduce

*Please describe where efforts have been made to reduce the number of animals used.*

|  |
| --- |
|  |

### Refine

*Please describe where efforts have been made to refine the protocols to minimize suffering.*

|  |
| --- |
|  |

# Study Design

### Species

|  |  |
| --- | --- |
| Species | Strain |
|  |  |
|  |  |

#### Animal characteristics

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Age | Weight | Special characteristics |
|  |  |  |  |
|  |  |  |  |

#### Justification

*Please provide justification why the specie(s)/strain(s)/line(s) is/are appropriate choice for this protocol.*

|  |
| --- |
|  |

#### Animal Source

|  |
| --- |
| Animals to be bred and supplied by LASEC  *Please discuss your experiment schedule with LASEC and check if they can meet your needs.* |
| Animals have already been bred under a previously approved protocol or application to breed is under processing.:  AEEC no: |

# Study Segment

Please create a new segment for each experiment. You may refer to the AEEC guidelines for procedure description.

#### Segment title

|  |
| --- |
|  |

#### Experiment Duration

Please provide your experimental duration. (From receiving animal to euthanasia)

|  |
| --- |
|  |

#### Species/strains to be used in this study segment

|  |
| --- |
|  |

#### Study segment objective

Please provide the objectives of this experiment

|  |
| --- |
|  |

#### Research hypothesis

Please give a specific statement of the possible outcome of your scientific research.

|  |
| --- |
|  |

#### Measurable outcomes

|  |
| --- |
| Change in body weight  Change in biomarker levels in tissue/blood  Change in physiological parameters  Change in the extent of tumour growth  Behaviour modification  Others: |

### Number of animals

Please use appropriate sample size calculator and define the experiment groups. A control group must be included.

|  |  |
| --- | --- |
| Group Assignment | Number |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

#### Justification for the number

|  |
| --- |
|  |

### Procedures

The system will provide a description for pre-determined procedures. If you do not see a procedure listed, you may define your own procedure. There is no need to include procedures after the animal is sacrificed.

|  |
| --- |
|  |

#### Severity classification

In assessing the severity of a series of procedures, account should be taken of the effect of all procedures applied to each animal; the nature of any likely adverse effects; the action taken to mitigate these effects; the assessment should reflect the maximum severity expected to be experience by any animal.

|  |
| --- |
| **[USDA C]** No more than momentary or slight pain or distress and no use of pain-relieving drugs, or no pain or distress. For example: euthanatized for tissues; just observed under normal conditions; positive reward projects; routine procedures; injections; and blood sampling  **[USDA D]** Potentially painful procedures for which anesthetics, analgesics, or tranquilizers will be used  **[USDA E]** Painful or stressful procedures without the use of anesthetics, analgesics, or tranquilizers |

#### Potential stressors

*Please check if the animal will experience potential stress in the procedures and describe actions to be taken to minimize stress.*

|  |
| --- |
| Environmental (noises, light cycle changes, temperature change, housing condition & location)  Physical (handling, surgery induced pain)  Chemical (drugs, disinfectant, animal excretions)  Social (singly-housed, re-grouping)  Other: |
| Actions to minimize stress: |

#### Post-surgery care and monitoring

Does the procedure(s) include surgery?

|  |
| --- |
| No |
| Yes: Please state "The team will adhere to AEEC Post-Operative Care Guidelines" or describe your post-operative care details, including fluid/warmth support and monitoring frequency. |

#### Animal monitoring

How many times will animals be monitored?

|  |  |  |  |
| --- | --- | --- | --- |
| Species | Parameters | Monitor Frequency | Responsible person |
|  | Body weight |  |  |
| Physical appearance |  |  |
| Behaviour/Activity |  |  |
|  |  |  |  |

#### Use of non-pharmaceutical grade compounds

*Investigators are expected to use pharmaceutical grade compounds whenever possible during research with animals.*

|  |
| --- |
| No |
| Yes- please justify and provide information on the compound, preparation, labelling and storage |

#### Humane Endpoints

|  |
| --- |
| ≥20% loss of body weight  Obvious distress  Extent of tumour growth. Tumour volume size is not allowed to exceed 2cm^3 or 10% of body weight.  Others: |

#### Euthanasia: Will animals be sacrificed upon completion of study?

|  |  |
| --- | --- |
| Yes | Euthanasia method: |
| No | Please explain: |

##### *Confirmation of death*

|  |
| --- |
| Lack of a heartbeat  Lack of respiration  Lack of corneal reflex |

### Disposal method of carcasses, tissues and contaminated materials

|  |
| --- |
|  |

# Anesthesia/Analgesic

### Anesthesia

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Procedure | Species | Drug | Dosage | Route | Duration | Comment |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

### Analgesic

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Procedure | Species | Drug | Dosage | Route | Frequency | Comment |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

# Animal Husbandry

### Water restrictions

|  |
| --- |
| No  Yes – Provide details of the duration and justification of the fluid restriction |

### Food restrictions

|  |
| --- |
| No  Yes - Provide details of the duration and justification of the food restriction |

**Environmental enrichment availability**

|  |
| --- |
| No – Please explain  Yes – Provide details of enrichment that will be used (E.g. nesting material, tunnels, plastic shelters, paper huts) |

### Singly housed

|  |
| --- |
| No  Yes – Provide details of the duration and justification |

### Will procedures lead to inability of animal to move freely or groom

|  |
| --- |
| No  Yes – Provide details of the duration and justification |

### Will animals need to be physically restrained during the procedure?

|  |
| --- |
| No  Yes – Provide details of the duration and justification |

### Location assignments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Site | Building | Floor | Room | Room Type |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# PART IV: SAFETY AND HAZARDS

*Hazards to personnel: Applicants must complete the form “Health Safety and Environmental Assessment for Research Grant Applications” and submit details of the project for a full safety evaluation by University Safety Office (USO). Safety approval from the USO must be obtained and submitted to AEEC prior to granting full AEEC approval.*

### Potential serious hazards

*Please provide a brief indication of potential serious hazards posed by any of the treatments specified in this application. Please include examples such as accidental injection, bite or scratch, chemical exposure, animal excretions that could potential cause personnel hazard.*

|  |
| --- |
|  |

### Details of safety measures to protect animals, personnel and property from exposure

*If this project involves injection/administration of:*

|  |
| --- |
| Cell lines/plasmid  Carcinogens  Cytotoxic agents  Microbiological organisms  Neurotoxin  Radiological Hazards  Other hazardous agents: |
| Please check all that apply and give details of safety measures: |

### Animal biosafety level

*Please refer to the University Safety Office Guidelines on Biosafety.*

|  |
| --- |
|  |

# PART V: TRANSPORTATION

## Transport

*Will animals only be transported throughout the experiments?*

|  |
| --- |
| Yes  No - Please provide details of how they will be transported |

## Animal Delivery

*Please select your animal delivery point(s).*

|  |
| --- |
| Cancer Centre  Green House  Hong Kong Eye Hospital  LASEC  RRSSB  SBS  Science Centre  MMW 620 |

# PART VI: PI CERTIFICATION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| I have provided an accurate description of the proposed Animal Care and Use Protocol and agree to the following conditions: (\*)  ***(A) Legal and CUHK Regulation Compliance***   * *My personnel and I will abide with The Hong Kong Code of Practice for Care and Use of Animals for Experimental Purposes, Cap 340 Animals (Control of Experiments) Ordinance and the International Guiding Principles for Biomedical Research Involving Animals and all policies governing the use of animals in research, teaching, and testing at the Chinese University of Hong Kong.* * *I certify that I have consulted with appropriate safety officer(s) of University Safety Office in compliance with the Radiation/Chemical Safety or Biosafety and that the committee has approved/advised the use of the test substance(s). I certify that research personnel will abide by all relevant, universal precautions regarding blood-borne pathogens, appropriate biosafety level precautions, radiation safety procedures, and the chemical hygiene plan.* * *If drugs that are classified by the Cap. 134 DANGEROUS DRUGS ORDINANCE as controlled substances are used in this study, I assure that they will be stored in a locked cabinet and accessible only to authorized persons in accordance with Cap. 134 DANGEROUS DRUGS ORDINANCE regulations.* * *I certify that all experiments and surgeries involving live animals will be performed under my supervision or that of another qualified professional listed on this protocol.* * *I certify that no animals will be moved or imported from animal facilities within Hong Kong or from outside of Hong Kong into CUHK animal facilities or animal facilities managed by CUHK without the written permission of the Director of LASEC or designate.* * *I certify that no animals will be housed in areas/laboratories other than the stated areas described in the application.* * *I certify that no animals, or animal tissues, as well as cell lines, caging and equipment, are to be moved between LASEC or LASEC managed facilities without the written permission of the Director of LASEC or designate.*   ***(B) Guidelines for Animal Experimentation***   * *I certify that the named individuals on this project have read and understand the procedures outlined in this protocol.* * *I declare that all personnel having direct live animal contact on this project, including myself, have been or will be trained in humane and scientifically acceptable procedures for animal handling, the administration of therapeutic drugs and euthanasia, as described in this project. Personnel will be allowed adequate time to obtain necessary training for this project and will not begin any procedure with live animals until they have been successfully trained.* * *I certify that all personnel working with live animals are aware of the potential hazards associated with the use of live animals and animal tissues and are enrolled in the institution's Occupational Health and Safety Program.* * *I certify that all personnel exposed to animals directly or worked in the same environment will be informed with associated health risks and ways to mitigate those risks. The working environment will be provided with appropriate personal protective equipment. In the incident of but not limited to animal bites and scratches, suspected allergies, and zoonotic diseases, personnel will seek medical advice promptly from University Health Service.*   ***(C) Assurances for Accuracy, Necessity and Quality of Animal Experimentation***   * *I certify that I have carried out and documented the results of an appropriate literature search to ensure that the proposed studies do not unnecessarily duplicate previous experiments.* * *I certify that I have reviewed the pertinent scientific literature and/or databases and have found no valid alternative to any procedures described herein which may cause more than momentary pain and all efforts will be made to alleviate pain and distress to the absolute minimum consistent with the study objective(s) and best veterinary practice.* * *I certify that I will notify the AEEC regarding unexpected study results that impact negatively on animal welfare. Any unanticipated pain or distress, morbidity or mortality, will be reported to the attending veterinarian and the AEEC and I will permit emergency veterinary care for animals showing evidence of pain or illness not addressed specifically in the approved protocol as well as routine veterinary care as prescribed for individual species.* * *I certify that the information provided within this application is accurate to the best of my knowledge and that no changes will be made without advance approval from the AEEC in writing. I also understand that, should I use the project described in this application as a basis for a proposal for funding (either intramural or extramural), it is my responsibility to ensure that the description of the animal use in such funding proposal(s) is identical in principle to that contained in this application. I will submit modifications and/or changes to the AEEC, as necessary, to ensure these are approved before revising such proposal(s).*  PI Signature:Acknowledgement by Department Chairman/School Director  |  |  |  |  | | --- | --- | --- | --- | | Name | Signature | Department/School | Date | |  |  |  |  | |