STEPS TAKEN TO IMPLEMENT 3Rs CONCEPT IN RESEARCH USING ANIMALS IN SRI LANKA

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Using dogs for surgical experiments unethical!

Contributions to this page could be sent to <featureseditor@unl.upali.lk> or Features editor The Island, Upali Newspapers Ltd., 223, Bloemendhal Rd, Colombo 13. Readers may also send photographs of families with their canine friends. 011-2497800, 011-2497573

Veggie Thins Dog Biscuit
Dog 1 – vertical & horizontal incisions in the abdomen with 30 stitches

Dog 2 – Adrenal glands removed, died on the next morning

Dog 3 – Pancreas has been removed, died after 6 months

- 3 Dogs were taken for adoption from the Shelter for homeless dogs in the university premises.
- Later subjected to unethical surgeries
* No ERC - Excuse

* Establishment of Institutional ERC

* Request - Development of ‘Guidelines for use of animals in research’


http://www.med.cmb.ac.lk/ .......Units and Centers ........ Ethics Review Committee
Points which emphasize 3Rs concept

• Necessary training

  Competence, Commitment, Collaboration

• Study design

• Experimental procedure – pain and discomfort

• Surgery and anaesthesia

• Facilities at Animal house and research environment

• Transportation of animals
Ethics Review Committee (ERC) – Faculty of Medicine, Colombo

Animal Ethics sub-committee – members

- Check - adherence of researchers to 3Rs concept
- Suggestions – for improvement
  - Reduction
  - Refinement
- Request – Resubmission
- Forward to ERC
Researchers plan to use a higher number of animals unnecessarily in pharmacological and toxicity studies using herbals.

A freeze-dried herbal infusion in different doses is orally intubated once to several groups of animals with control groups (low, mid, high doses of the herb, negative control with distilled water and the positive control with a diuretic or commonly used hypoglycaemic agent; total number of animals required = 30) to study diuretic or hypoglycaemic effect of a herb.

Same groups of animals could be used after a lag period of 7-10 days for the planned toxicity studies.
• Number of animals required for a research project (**Reduction**)

• Reduces number of animals suffered and killed (method of **Refinement** in these type of studies)

• Limits the number of animals have to bred and kept in the animal house for research purposes
Training courses:

Not available and not compulsory prior to research

Training obtained:

Certificate course on LAS by Utrecht University, Netherlands in 2009
FIRST INTERNATIONAL CERTIFICATE COURSE ON LABORATORY ANIMAL
SCIENCE IN THE ASIAN REGION – 28TH NOVEMBER TO 9TH DECEMBER 2011
CONDUCTED AT THE FACULTY OF MEDICINE, UNIVERSITY OF COLOMBO IN
COLLABORATION WITH THE UTRECHT UNIVERSITY, NETHERLANDS

Funding – Laboratory Animals Ltd, UK and ICLAS
Establishment of SLALAS – Dec 2012

The general objective of the Association:

To advance scientific understanding and knowledge of the use, care and welfare of laboratory animals and promote 3Rs concept (refinement, reduction and replacement).
SLALAS wants to be the monitoring body for the animal experiments conducted in the country to enhance welfare of animals use in research
Steps taken to advance scientific understanding and knowledge of the use, care and welfare of laboratory animals and to promote 3Rs concept

Workshops with practical sessions

- Inaugural workshop @ Sri Jayawardanepura University in February
- 2nd at the Institute of Indigenous Medicine, University of Colombo in June
- 3rd at Uva Welassa University in August
• Introduction to Laboratory Animal Science
• Ethical Guidelines - Sri Lankan System
• Anatomy of Laboratory Animals
• Basic Techniques of Animal Handling
• Anaesthesia
• Nutrition of Laboratory Animals
• Breeding of laboratory Animals and Managing an Animal Facility
• Humane Endpoints in Laboratory Animal Experimentation
• Laboratory animal diseases and microbiological monitoring
• Basic genetics and Genetic Monitoring of Laboratory Animals
• Environmental enrichment for laboratory animals
• Alternatives to Animal Procedures

• Introducing fish as an animal model
Mouse inoculation/ Mouse neutralization Test vs Rapid Fluorescent Focus Inhibition Test (RFFIT)

- Established by the Medical Research Institute
- Rabies virus neutralizing assay
- Use Baby Hamster kidney cell-S-13 cell culture

1. Persistence of antibody titres in adult dogs and puppies following anti-rabies immunization

2. Serological response following anti-rabies immunization in a representative canine population in Sri Lanka
Planning to introduce

**Fluorescence Antibody Virus Neutralization Test (FVAN)**

*More sensitive and cheaper than RFFIT*
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Thank you