

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

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# Story on unethical surgeries

INSIDE

Tuesday 17th July, 2007



**Buildings for sustainability: Materials and construction**

**Of fixing price for natural gas**

**BAILA at Smithsonian in Washington, D.C.**



# The Island Leisure Land



## Using dogs for surgical experiments unethical!



other relevant members from the hospital staff and intern students also participated in the surgeries. There is nothing wrong or unethical or any such thing done on my part," Dr. Kumara said. He said, at the time he was a student of the University there was a large number of stray dogs rounded up. Whenever they wanted a dog for an experiment, they got a dog after paying a person five rupees. Prof. Rajapakse is doing some research related to diabetes. How to carry out these researches without using dogs, he asked. Professor Rajapakse refused to comment on the issue is subject to further investigation.

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. 011-2497500, 011-2497573

**Today's Special**  
**Veggie Thins Dog Biscuit**

- 3 Dogs were taken for adoption from the Shelter for homeless dogs in the university premises.
- Later subjected to unethical surgeries

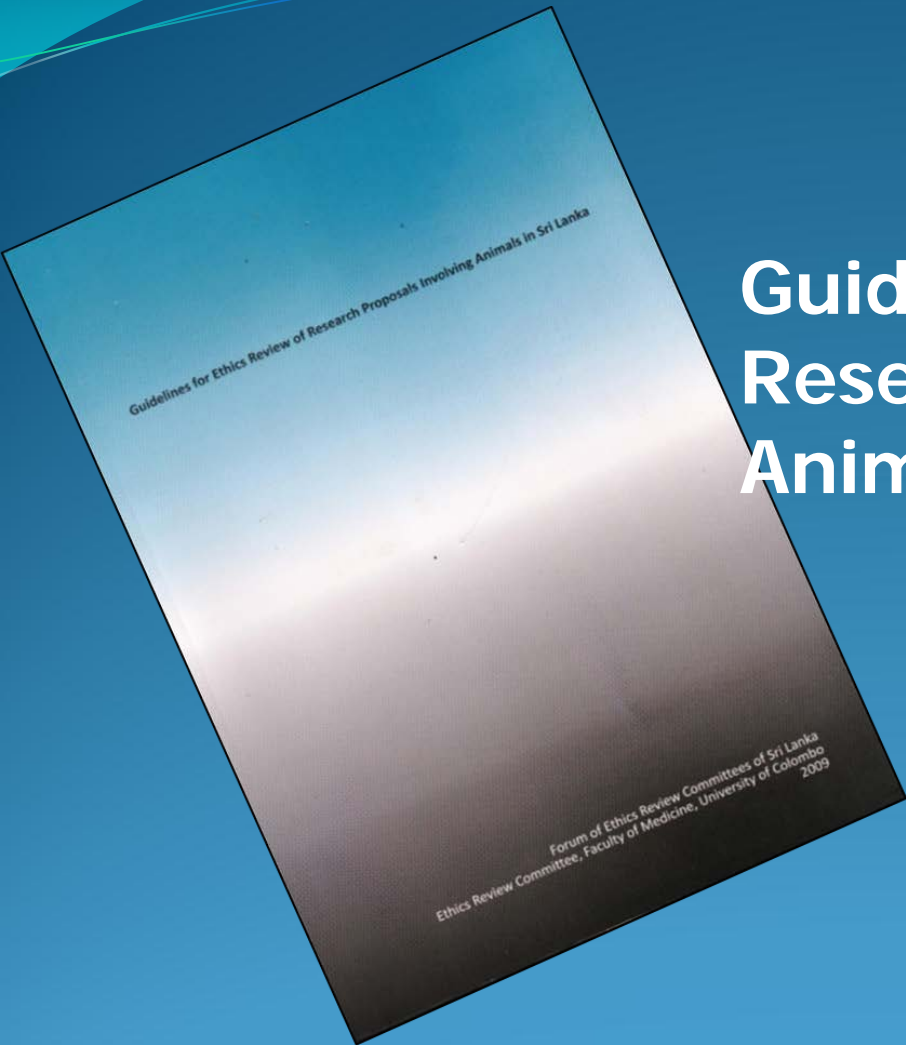


Dog 1 – vertical & horizontal incisions in the abdomen with 30 stitches

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

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

- \* No ERC - Excuse
- \* Establishment of Institutional ERC
- \* Request - Development of 'Guidelines for use of animals in research'
- \* Workshop on developing National Guidelines – September 2008.



# Guidelines for Ethics Review of Research Proposals involving Animals in Sri Lanka in 2009

<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

# Application : Reduction and Refinement

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



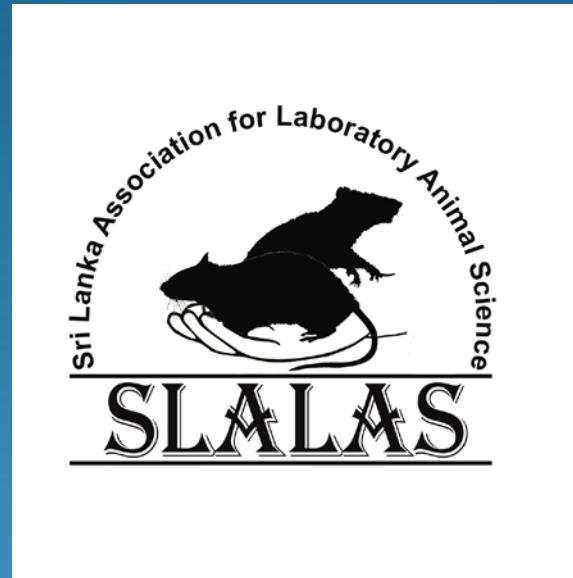
FIRST INTERNATIONAL CERTIFICATE COURSE ON LABORATORY ANIMAL SCIENCE IN THE ASIAN REGION – 28<sup>TH</sup> NOVEMBER TO 9<sup>TH</sup> DECEMBER 2011

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).

# **No Regulatory Authority/Monitoring body**

**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
- 2<sup>nd</sup> at the Institute of Indigenous Medicine, University of Colombo in June
- 3<sup>rd</sup> 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**

## Acknowledgments:

- **Laboratory Animal Science Association, UK for Bursary**



- Mr Helmut Appl, *Secretary General* and Congress organizers of 18<sup>th</sup> European Congress for Alternatives to animal testing



Thank you