

LASAI NEWS LETTER

Annual Bulletin of

LABORATORY ANIMAL SCIENCE ASSOCIATION OF INDIA (LASAI)

Registered office: Division of Laboratory Animals, Central Drug Research Institute, Chattar Manzil, Lucknow-226001, INDIA

For circulation to LASAI members

Current Issue's Quote:

If we stop animal research, who is going to stop real killers ?



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Preamble:

Laboratory animals of different species and strains have been the basic tools for biomedical research, education and testing programmes. Upgrading our knowledge to undertake welfare and safety measures for human as well as animal health these animals have always served for the welfare of human race; hence it becomes obligatory from our part to protect the welfare issues of these animals too. Several government and private institutions and bodies have emerged nationally and internationally to share the responsibilities of care and welfare of experimental animals worldwide. However, during past three decades only limited efforts were made to improve the conditions and wellbeing of experimental animals in Indian context.

January 2010

The Department of Biotechnology, Government of India during mid 1980s extended its financial support to some national laboratories including Central Drug Research Institute, Lucknow to upgrade and expand the laboratory animal infrastructure facilities. Consequent to this the development of the animal house facilities was initiated on scientific lines improving housing and environmental conditions of research animals. Emphasis was also paid to conduct training courses, symposia and workshops inviting scientists and technical persons engaged in laboratory animal breeding, management and experimentation to enhance their awareness and skills. With support of competent and enthusiastic groups engaged in care and use of experimental animals a proposal was raised to form an association at national level which may responsibly disseminate the knowledge on research animals throughout country. Finally, under stewardship of Dr KR Bhardwaj an eminent laboratory animal scientist a scientific association viz. the Laboratory Animal Science Association of India (LASAI) was founded in year 1988 which was registered under Societies Act 1860 with its registered headquarter located at Division of Laboratory Animals, Central Drug Research Institute, Lucknow. It was the time when the importance of using defined animals in biological and drug discovery researches at academic and research institutions and pharmaceutical industries gained momentum. By the peer group of LASAI in the beginning of 1990s basic guidelines on care and use of laboratory animals were framed which were later reviewed by a national committee constituted under the aegis of Indian National Science Academy (INSA) and chairmanship of Prof. B.N. Dhawan, then Director of CDRI. These were the first guiding principles in the country which were published in year 1992 as INSA Guidelines on Care and Use of Laboratory Animals in Research.

Since its inception the LASAI executive body worked insistently and propagated the information pertaining to the laboratory animal science within and beyond the boundaries of the country. This helped to upgrade the housing and managemental practices being undertaken in research animal facilities with improvement of animal quality and welfare issues. The initiatives were taken by the CPCSEA during the same period to strengthen the animal welfare regulations and enrich the perception of the scientific community towards use of quality animals in research and testing programmes. This in turn boosted for an overall development of laboratory animal science in the country.

The activities of LASAI were slowed down after 1998 because of some inherent limitations within its framework and remained so for a decade. During this phase only little activities could be taken up. About ten years later the scientific voice rose again for revival of the LASAI activities. Simultaneously, some other enthusiastic scientists joined hands to raise and establish a new scientific association named as Laboratory Animal Scientist's Association (LASA) with its registered office located at Hyderabad. In the meantime, charged with responsibility of managing the National Laboratory Animal Centre of CDRI in the year 2007 Dr. D.S.Upadhyay put an exhaustive effort with support of his team comprising active members to revive the activities and the status of LASAI. Now it is good news for every member of LASAI that the same has been revived with its registration renewed up to year 2013. During the annual general body meeting (AGBM) of the LASAI convened at National Symposium on Animal Models held at CDRI on 25-26 Feb 2009 it was decided to restructure the executive body of the association. Now, both associations are working coherently to safeguard the welfare of laboratory animals and their rational use in research. Any person having concern and engaged in laboratory animal care, breeding and experimentation work can take membership of both associations with a cause to improve the status of this science.

Aims and objectives:

- To promote advancement of laboratory animal science in India.
- To arrange scientific meetings and group discussions amongst persons interested in laboratory animal science and allied subjects.
- To evaluate the ethical and welfare issues of laboratory animals relevant to breeding and experimentations.
- To help to standardise the production and use of laboratory animals in India.
- To promote awareness for ethical upkeep and use of animals in scientific research and support the implementation of legal provision in this concern.
- To help human resource development programmes in this area.
- To publish scientific literature to update the knowledge of laboratory animal science.
- To organise symposia/workshop/seminars for the use and welfare of laboratory animals

Editors' choice:

Humane care and ethical use of animals in research:

A new substances or devices should not be used for the first time on human beings unless previous tests on animals have provided a reasonable presumption of their safety. The use of animals for predicting the probable effects of procedures on human beings entails responsibility for their welfare also. In both human and veterinary medicine animals are used for behavioural, physiological, pathological, toxicological, and therapeutic research and for experimental surgery or surgical training and for testing drugs and biological preparations. The same responsibility toward the experimental animals prevails in all of these cases.

Experimentation with animals has made possible major contributions to biological knowledge and to the welfare of man and animals, particularly in the treatment and prevention of diseases. There is an urgent need for basic and applied research that will lead to the discovery of methods for the prevention and treatment of diseases for which adequate control methods are not yet available - notably the noncommunicable diseases of warm chimates.

Animal should always be used in accord with humane practices. The guiding principles not only apply to biomedical research but also to all uses of vertebrate animals for other biomedical purposes, including the production and testing of therapeutic, prophylactic, and diagnostic substances, the diagnosis of infections and intoxications in man and animals, and to any other procedures involving the use of intact live vertebrates.

- The advancement of biological knowledge and the development of improved means for the protection of the health and well-being both of laboratory animal and human beings require recourse to experimentation on intact live animals of a wide variety of species.
- Methods such as mathematical models, computer simulation and *in vitro* biological systems should be used wherever appropriate.
- Animal experiments should be undertaken only after due consideration of their relevance for human or animal health and the advancement of biological knowledge.
- The animals selected for an experiment should be of an appropriate species and quality, and the minimum number required to obtain scientifically valid results.
- Investigators and other personnel should never fail to treat animals as sentient, and should regard their proper care and use and the avoidance or minimization of discomfort, distress, or pain as ethical imperatives.
- Investigators should assume that procedures that would cause pain in human beings cause pain in other vertebrate species, although more needs to be known about the perception of pain in animals.
- Procedures with animals that may cause more than momentary or minimal pain or distress should be performed with appropriate sedation, analgesia, or anaesthesia in accordance with accepted veterinary practice. Surgical or other painful procedures should not be performed on un-anesthetized animals paralysed by chemical agents.
- At the end of, or, when appropriate, during an experiment, animals that would otherwise suffer severe or chronic pain, distress, discomfort, or disablement that cannot be relieved should be painlessly killed.
- The best possible living conditions should be maintained for animals kept for biomedical purposes. Normally the care of animals should be under the supervision of veterinarians having experience in laboratory animal science. In any case, veterinary care should be available as required.
- It is the responsibility of the director of an institute or department using animals to ensure that investigators and personnel have appropriate qualifications or experience for conducting procedures on animals. Adequate opportunities shall be provided for inservice training, including the proper and humane concern for the animals under their care.

Special Provisions

Norms and guidelines for the animal welfare provisions established by the national authority i.e. Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) are given as below:

- The research proposals that fall under the following categories (excluding wild animal studies) would be approved by the IAEC of institution / organization.
- Feeding trial that do not cause stress and do not involve any invasive procedure.
- Feeding trial in food animals do not cause stress and do not involve any invasive procedure and slaughter in humane way.
- Breeding experiments that do not cause stress and do not involve any invasive procedure.
- Livestock and poultry management studies that do not cause stress and do not involve any invasive procedure.
- Wild animal studies that do not cause stress and do not involve any invasive procedure and without any restrain, involving measurements on behaviour, comfort and health of animals.

Monitoring of the care and use of animals for experimentation

- Wherever animals are used for biomedical purposes, their care and use should be subjected to the general principles and criteria set out above as well as to existing national policies laid down by CPCSEA.
- Principles, criteria and monitoring procedures should have as their objectives the avoidance of excessive or inappropriate use of experimental animals and encourage appropriate care and use before, during, or after experimentation.

Methods not involving animals: "alternatives"

• The term "alternative" has come to be used by some to refer to a replacement of the use of living animals by other procedures, as well as methods which lead to a reduction in the numbers of animals required or to and other chemicals, and computer modelling of other biological processes. The biological methods include the use of micro-organisms, *in vitro* preparations (sub-cellular fractions, short-term cellular systems, whole organ perfusion, and cell and organ culture) and under some circumstances, invertebrates and vertebrate embryos.

The 'Rs' relevant to the animal welfare:

• The user must take care of the Five 'R's while using Laboratory animals: Replacement, Reduction, Refinement, Rationale use and Rehabilitation

News and Views:

Activities held by LASAI during preceding year

National Symposium on Animal Models in Biomedical Research: Ethical and Welfare Issues

A two days symposium on "Animal Models in biomedical Research: Ethical and Welfare Issues" was organised on February 25-26, 2009 in collaboration with the CPCSEA (Committee for the Purpose of Control and Supervision of Experiments on Animals), National Institute of Animal Welfare (NIAW) under Ministry of Environments and Forest, Govt. of India and the Laboratory Animal Science Association of India (LASAI). The focus of the symposium centred on animal models for biomedical experimentations, ethical and welfare issues in management of laboratory animals, health monitoring and disease control programmes, quality control and strains characterization including genetic monitoring, and animal house health hazards and safety precautions.

The Symposium was inaugurated by Sri Anjani Kumar, Director, AWD & Member Secretary, CPCSEA. The programme included six scientific sessions based on the theme of symposium. Various sessions were chaired by prominent laboratory animal scientists and technical personnel including Dr K R Bhrdwaj, President, LASAI, Sri Anjani Kumar, Dr A K Srivastava (VP, APHV), Dr P V Diwan, Project Director, NIPER, Hyderabad, Dr J K Saxena Head, Biochemistry CDRI and Dr Aparna Tripathi, followed by panel discussion and review.



Inaugural Function of the National Symposium



Dr T K Chakraborty, Director CDRI felicitating to the Chief Guest Sri Anjani Kumar, Director, AWD, MoEF, Govt of India

In a total, six scientific sessions were conducted on different subject areas of laboratory animal science, viz.: 1) Laboratory animal ethics, welfare and alternatives, 2) Laboratory animal management, breeding and nutrition, 3) Animal facility management and quality control, 4) Animal models, methodologies, health and disease management, 5) Animals in drug research, 6) Poster session.

The participants from all over the country joined the symposium in which more than twenty invited lectures on different issues relevant to laboratory animal care and use were delivered by the speakers from academic institutions and pharmaceutical industries. In the concluding session the review report was prepared and disseminated by Dr S K Puri, followed by special remarks by Sri Anjani Kumar and Dr K R Bhardwaj, President, LASAI. The valedictory address was delivered by Dr V P Kamboj, former Director, CDRI with a concluding remarks made by Dr Tushar K. Cakraborty, Director, CDRI.

• LASAI General Body Meeting: The general body meeting of LASAI was convened on 26th February 2009 to discuss on various issues and activities of the organization in order to promote the laboratory animal science and animal welfare subjects in the country.

Events supported by ICLAS:

- **FELASA-ScanLAS joint Meeting 2010:** The 2010 FELASA-Scan-LAS joint meeting will take place on June 14-17 2010 in Helsinki, and information is available at: <u>http://www.scandlas.org/felasa2010/index.htm</u>
- ICLAS XV General Assembly Brazil 2011 in collaboration with COBEA, FESSACAL and ACCMAL <u>Mailing Address</u> : Secretary General ICLAS, ICLAS (International Council for Laboratory Animal Science) CC 296 CP 1900, La Plata, Argentine

National Regulations and Resources on Laboratory Animal experimentation

- Government of India Ministry of Environment & Forests, Animal Welfare Division http://envfor.nic.in/divisions/awd/awd_overview.html
- Committee for the Purpose of Control and Supervision on Experiments on Animals (CPCSEA): Guidelines for Laboratory Animal Facility and Standard Operating Procedures for Institutional Animal Ethics Committees, Animal Welfare Division, Ministry of Environment and Forests, January 2010 <u>PDF Document</u>

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Future Plans:

- Strengthening of the LASAI by generating membership from different areas of the country and abroad.
- Generation of fund through membership, donation and advertisement etc.
- To organize Symposium/seminar/workshop and meetings to explore the service of LASAI for betterment of laboratory animal sciences.
- Publication of the LASAI activities and its' wide circulation for awareness on Laboratory animal use and welfare.
- To promote and educate the animal users to adhere with the motto of Five 'R's.
- To train people for providing skill on care and ethical use of laboratory animals.
- To provide knowledge for production of defined healthy animals of known genetic, nutrition and environmental status.
- Accreditation of LASAI with internationally recognized organisation working for laboratory animal science.
- To apprise animal users for CPCSEA guidelines and norms laid down by Animal Welfare Board (Govt. of India)
- To provide consultancy regarding creation of new animal facility for better up keeping of lab animals.
- To launch web site of LASAI.
- To initiate a toll free helpline to animal users for animal welfare.