

**I**n India 95 per cent of experimental research involves the use of animals. Over the last 55 years our national research institutions, universities, medical, veterinary and pharmacy colleges have killed millions of animals in the name of research. Unfortunately, only now are we beginning to realise that most of this “research” was either unnecessary duplication of research already done in more advanced countries, or it was done merely for obtaining a degree or for getting publication credit, or just for career advancement rather than advancing scientific knowledge.

In most countries involved with advanced research, it is well recognised that the quality of research depends on the care with which it is done on laboratory animals. Therefore, research establishments do ensure that animals get proper care and that their breeding and management follows established scientific principles. In India, though lab animals are routinely used in research, there are no proper facilities for their upkeep nor are the experiments based on rigorous scientific principles. Though hundreds of scientists went and still go abroad yearly to look at laboratories in other countries, it is rare to see anyone of them bothering to apply that knowledge in their own labs after their return to India.

In 1963, a hue and cry arose in Parliament about the conditions of animals in laboratories. In response, Parliamentarians voted to set up a Committee for the Control and Supervision of Experiments in India (CPCSEA). (Please see “History of the CPCSEA” in this issue.) The first CPCSEA was constituted in 1964 with representatives from the medical and veterinary professions. It submitted its first report to Parliament. In it the Committee observed that the housing and upkeep of lab animals was not

## **Cruelty without Purpose**

### **Corruption and Fakery in the Name of Science**

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satisfactory, nor were the animal cages and rooms in which they were kept. They had also observed redundant research experiments being uselessly repeated to confirm or to refute results already well established.

This report was released almost 40 years ago. After their first and only report, the CPCSEA was taken over by the scientists themselves. The Director General of the Indian Council of Medical Research (ICMR) was Chairperson of the Committee. The Committee did not meet even once. The scientists made sure that this watchdog created by Parliament was in fact scuttled. Nothing was done with the first and only report to either implement the provisions of the Act or to upgrade the facilities at the labs.

When Indian scientists started submitting their work for publication abroad, they were in for a shock. Western scientific journals insisted that prior to accepting any research papers the scientists had to give details of the species and strain of animals used, the environmental conditions they were maintained in, their genetic background and their health status. Not one “scientific”

lab had any of these details, making entire researches invalid.

The Department of Biotechnology stepped in and gave money to several organisations to upgrade their animal facilities.

The organisations that received grants included Laboratory Animals Information Service Centre at the National Institute of Nutrition (NIN), Hyderabad, and the Central Drug Research Institute (CDRI), Lucknow. It made no difference. CDRI was indicted by the Comptroller and Auditor General (CAG) for spending 6.3 crores on Diwali gifts and travels abroad. The labs remained primitive. Animal houses remained the least important place in institutions and a posting to the animal house was considered as a punishment for lazy and disobedient Class IV employees. The animal houses received the least money and attention. They remained a set of dark, dank rooms in which animals were kept in appalling conditions. Untrained persons conducted experiments. Even today the conditions in our animal houses and the practices employed in experiments with these animals are amongst the worst in the world. That is why CPCSEA was reactivated and started methodically checking each laboratory.

In the rapidly advancing field of biomedical research, animal experiments are becoming more sophisticated with the increasing need for more precise results. To achieve these results the animals

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themselves must be of high genetic and microbiological definition. Therefore, governments and universities abroad invest crores of rupees on the improvement of animal care facilities and pass stringent laws on animal testing. The effort is to attain the maximum information using the minimum number of animals. Sophistication in research using animals has reached a level where animals such as Specific Pathogen Free, Transgenic and Cloned animals have become common. Several organisations maintain, breed and supply these animals to advanced nations. The same animals cannot be used in India as facilities to maintain these animals are non-existent.

What has the CPCSEA uncovered? That the facilities in most “scientific” research institutions in the country do not have appropriately designed animal facilities. Instead, an existing building, usually a shed or a garage, is converted into an animal facility. The basic infrastructure to maintain these animals— for example, environment control equipment— is not installed. Essential facilities such as well-equipped surgery theatres for lab animals are non-existent. Often laboratories use the same room for both surgery and post-mortems which causes infection to both living animals and humans. Genetic and health monitoring laboratories are non-existent. Overcrowding and outbreaks of diseases go hand in hand. Instead of giving away diseased animals, scientists use them first “before they die”. There is no protocol followed on when food is given or what food is given. Rats or goats, monkeys or cats, they get the same sawdust based pellets mixed with leftover greens bought from the remains of vegetable markets. Invariably, scientists have no regard for either the type of animal or the

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health of the animal they use for research. When is this food given? Whenever the Class IV employee who runs the facility feels like doing it—but certainly not on holidays. Even God rests then!

All microbes, be it viruses, bacteria, mycoplasma, fungi or parasites interfere in research. It is an established fact that microbes can influence the outcome of the results of an experiment. This could invalidate the results of an experiment. To overcome such interference, it is necessary to use animals that are bred scientifically in a clean environment and their microbiological load checked frequently. Facilities for screening animals for viruses are non-existent in this country. Institutions that claim to be screening their animals show a few sample kits for testing that have been imported. Most scientists care less about what his research actually produces— as long as the animal is dissected and his quota for killing is reached. The important factors that cause variation are the genetic makeup of the animals themselves, the environmental conditions they are maintained in (including the temperature, humidity, light, air changes, feed and nutrition), the health of the animals, and the

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efficiency of the staff in handling and conducting procedures on animals.

It is also an established fact that the health status, performance and metabolism of experimental animals are influenced by the composition of the diet and the feeding practices. Not one of these issues, whether in a multinational company or a government laboratory, have been dealt with adequately in India. No wonder India has produced only 14 new drugs in 55 years and even these have been rejected abroad. Even this has not spurred the scientists on to improve the standards of research. Contrast this with other Asian countries where research methodologies have been advanced to an extent where microchips are inserted to continuously monitor parameters in a living animal, thus reducing not only the number of animals necessary, but also improving techniques to make them less invasive.

How many research publications from India get published in reputed international science journals? Hardly any, though India spends not less than 5000 crores a year on “research”! The CAG report of August 2001 on the state of science in the country reveals that from 1989 to 1998 India’s contribution to world publications was a measly 2.2 percent of the total number of research papers written in this country! This shows that just about very little of the research done in this country is new, original or acceptable internationally. It also means something worse. It means that the experiments that are conducted run into thousands but very few of them are even written up by the people who conduct them. The CAG found that of the 338 experiments conducted in 1988 by the All India Institute of Medical Sciences (AIIMS), 133 had still to be written up by 2001 by which time they were

obsolete! Will someone explain why all those animals were bought and killed at government expense? In 1999, the Indian Council of Medical Research reviewed the publications of its own scientists and noted that it found the research to be so trivial that the impact factor of the publications was very low. And this after spending millions.

India needs to take a hard look at its scientists and to put a stop to the present state of directionless, un-meaningful, sub-standard and cruel research. How valid is Biomedical Research in India? This is not a humans vs. animals issue as the “scientists” are trying to pretend. As scientists are exposed as ineffective fakers, as corrupt as any politician, they hide behind our respect for science. The issues that I have raised have nothing to do with cruelty to animals by itself. They are about corruption, fakery and the lack of science. These issues have not been raised only by me but also by some responsible concerned scientists themselves.

Experiments on animals have become a way and means of livelihood



**Nine in a cage where there should be only three. Accumulated feces reaches almost to the top of mice trays at the Maulana Azad College of Medical Sciences, New Delhi.**

for many. In most of the universities, research scholars or even postgraduate students have been made to understand that the easiest way of conducting research is to feed some toxin or product to a set of animals and look up some of the parameters to submit a thesis. The sole objective is to acquire a degree or a publication no matter how dubious its worth. What they do is illegal. An animal experiment

is required only to confirm a proper hypothesis after preliminary research is done using other methods. The planning of the project using scientific methodologies is also overlooked. In the European Union, all students or researchers planning to conduct an animal experiment necessarily have to undergo training in Laboratory Animal Science wherein they are taught to plan a study using statistical methodologies to arrive at the appropriate number of animals for the study to achieve meaningful data. The trained person is issued a license for a specified period to carry out experiments. This license is revoked as and when it is found

that the student or researcher has deviated from the laws.

In the last two decades in India, a majority of the students admitted to Postgraduate or Doctoral research are not even aware of lab animal sciences. The animals are kept carelessly and handled carelessly by ignorant young people who think this is a joke. The Maulana Azad medical college is a typical example. Think of the most horrible way in which to keep and hurt animals, and then multiply those ways by a minimum of ten. You will see every horror you can possibly imagine reproduced. The concept of using appropriate models of animal, appropriate numbers and a well-designed experimental protocol does not exist. The state of affairs is so bad that the research cannot even be written up and the data obtained ends up only being published in the university annual report in three lines.

Is India going to progress or are we going to let vested interests keep looting us in every sphere? Do we not deserve a better health system? If so, it is time to deal with these issues. □



**Institute of Animal Health and Veterinary Biologicals, near Bangalore : 30 rabbits housed in a small cage with no water facility**