

Nominees of CPCSEA initiated a nationwide inspection of animal houses and laboratories beginning December 1998 and till date 467 laboratories have been inspected of which 400 do not have the basic facilities for the housing and care of their experimental animals.

The findings of the nominees raise questions that merit a public debate on the issue of the ethical use of animals for research. Another question is the negligible outcome of scientific research in India despite huge amounts of public money being given as grants. A glaring example is the fact that since 1956 till date only 14 medicines invented by Indian scientists have been approved and released by the Drug Controller. Out of this nine have been patented by one single institution-The Central Drug Research Institute, Lucknow.

However, within the given constraints, the CPCSEA has been able to make a difference to the manner in which animal experimentation is being carried out:

■ CPCSEA has formed a Sub Committee to recommend the use of the European Commission for Validation of Alternative Methods (ECVAM) and Inter-agency Coordination Committee for Validation of Alternative Methods (ICCVAM), validated alternatives like the Corrsitex skin test, the 3T3 NRU phototoxicity test and the Episkin test. The Lal alternative to rabbit pyrogen testing is entering its final stage of implementation. The LD50 test in non regulatory testing has been banned.

## Condition of Animal Houses

### Report by the CPCSEA Inspection Team

The commercial production of monoclonal antibodies by the ascites method has been banned: production houses have asked for a two year phase out period.

Today we are at a critical period when the government, in its bid to 'open' the Indian economy to global forces, has displayed serious contradictions: research scientists

who have been increasingly in the firing line for the filthy conditions of their laboratories, duplicative research, casual attitude to procurement of lab animals from unregistered suppliers, and callous lack of monitoring of surgical interventions and post surgical recovery of experimental animals have attempted to enlist politicians from different parties to rise to their defence under the guise of protecting scientific advancement..

Chambers of Commerce have even touted India as a cheap testing ground for both pre-clinical animal trials as well as human trials. Many of us are finding this policy increasingly difficult to reconcile with the traditional regard and reverence for animals enshrined in our own scriptures. Ironically, government policies recommend expenditure of large sums of money in a bid to 'standardise' *ayurvedic* drugs and traditional medicines according to procedures defined by



**A 27 year old monkey held captive at AIIMS for 19 years in a filthy, old, small, rusted, solitary cage without exposure to sunlight which also leads to sudden loss of hair. AIIMS won't let go of this monkey despite repeated efforts by CPCSEA to get it rehabilitated. Experiment in progress seeks to determine whether 27 year old monkeys can have sex and reproduce!**

western science which involve killing of huge numbers of animals in testing processes to generate revenues by sale in international markets.

However, as corruption in scientific institutions is increasingly exposed, many scientists today consider it important to look for alternatives to animal experimentation.

### **Horrors in Premier Institutes**

CPCSEA has rescued and rehabilitated over 134 lab monkeys from all over the country in two sanctuaries created for this purpose. The first lot of monkeys were spotted in December 2000 in the Animal House of All India Institute of Medical Sciences, New Delhi (AIIMS) which had housed about 174 rhesus monkeys in small individual cages, most with no water. Oddly, some monkeys' bodies appeared to finish at the waist, with no lower limbs. Their legs had shrunk to such an extent that they could hardly be spotted. The cause was that these monkeys had been in the Animal House in small, rusty cages for upto 23 years during which time they had not been let out of the cages. Some lacked teeth, but were given hard regulation laboratory pellets to eat. When the researchers concerned were asked to justify their research on sick monkeys, they obtained a stay order and continued the research. The case is due for hearing soon: we hope that the stay can be vacated and sick monkeys released for rehabilitation. Another special feature of AIIMS was the lethargy in performing autopsies. To arrive at the medical and experimental history of a monkey one has to extract information from different registers, most of them incomplete. The Institute also shows a predilection for confining monkeys up to 27 years of age in small individual cages even though internationally it is recommended that they should not be kept for more than three years and during that period they be housed in groups. A number of



**AIIMS, Delhi : mother and baby in a cramped single cage, not recommended because confined space leads to behavioural disorders and may result in cannibalism.**

monkeys were found to be suffering from tuberculosis. New born infants had a high mortality and died of diseases such as dehydrated kidneys, congestion of lungs, hemorrhage and pneumonia. The Institute, under pressure from CPCSEA has constructed three new group housing systems equipped with swings and has even bought some new cages,



**King Institute, Chennai : a horse showing a neglected deep maggot wound, leaving no semblance of a hoof. The horse has been rehabilitated by CPCSEA.**

though a majority of the animals are still in their old, rusty cages fastened with wire.

But All India Institute of Medical Sciences is not unique in its treatment of experimental monkeys: barely five kilometres away stands the imposing structure of the renowned National Institute of Immunology, set up mainly to facilitate research on the now infamous anti fertility vaccine-that-never-was (see pp. 42-44 of this issue). Staff of AIIMS (who still speak nostalgically of pre-CPCSEA days when each student was given a rhesus monkey caught on campus or bought from a *madari*, and if not a monkey, at least a mongrel or a cat on which to practice surgery) testify that 50-60 baboons (imported from Africa) and large numbers of marmosets were shifted from their premises in AIIMS to NII when their founder-researcher left to set up the new Institute. Today there are no baboons nor marmosets at NII and we cannot be sure where they went, but we did find 124 rhesus monkeys and 79 bonnets: deformed and emaciated and upto 20-25 years of age. The authorities are planning to release some 50 old bonnet monkeys in the wild in South India. This is their usual practice: it is of no concern to them that these creatures, having spent almost all their lives in cramped cages, are ill-equipped to forage for food or deal with the wild and will probably be torn apart by native herds of monkeys or die of starvation. It is interesting that NII has continually blocked attempts to inspect its primate facilities. On a recent visit, armed with letters of authority, we found out why this was so: over 90 per cent of monkeys had suffered from TB over the last 20 years, there was an unbelievably high mortality rate and some monkeys died of septicaemia after surgical procedures. The Institute buys pregnant monkeys and transports them overnight from

Lucknow by train in cramped bamboo cages that allow no movement. We saw several monkeys with deformities. When a CPCSEA nominee tried to photograph them, a senior NII scientist pounced on her and physically assaulted her.

Most of the rhesus monkeys at National Institute of Virology, Pune (NIV) had a variety of diseases including skin ailments, paralysis, osteoporosis, etc. Shockingly, some even had blood oozing from orifices and old untreated, unhealed fractures, and missing teeth. Nominees also found a blind monkey still being used for experiments. This Institute also had blind rabbits in small non regulation cages, debilitated sheep and fowl with skin lesions.

If AIIMS is tardy with autopsies, Indian Institute of Science, Bangalore (IIS) is enthusiastic about euthanasing monkeys. Scientific terminology calls the killing of animals in experiments a 'sacrifice' in the endeavour to improve the lot of humans. Between January and May 2002, 25 monkeys had been killed of which 17 had been 'sacrificed' in April itself with no justification and no experimental results. More than 40 per cent of the monkeys available in the Institute have been kept in cages for more than 10 years. Some of the cages were very small and placed one on top of the other, so that the urine and faeces of one would fall on the one beneath. Like their cousins in AIIMS and NII, these monkeys showed signs of fear and neurotic behaviour like the compulsive licking of lips and gnashing of teeth. Their skin ailments and bone deformities, obvious to the naked eye, had not even been entered in their health records.

### **Horses and Anti Snake Serum**

The CPCSEA was alerted to the condition of horses being bled for anti-snake venom serum manufacture when it was reported that some animals had

been bled to death. We found that in eight institutes old horses up to the age of 28 years retired from the army, pregnant mares, horses with maggot wounds, and anemic horses were being used for the manufacture of anti snake vaccines. No health parameters were checked before bleeding and these horses were being bled for 18 to 20 litres every fortnight, some had developed uvetitis. One of the institutes even had a monument to honour a horse that had been bled for 4,590 litres. At Haffkines Bio-Pharmaceutical Ltd, Pune, the CPCSEA found a complete neglect of the animals that suffered from conjunctivitis with lacrimation, nodular swelling on either side of the neck and fibrosis, open oozing wounds on the legs, swollen fetlock joints and limping, debilitated condition, chronic inflammation of the knee joints and blindness in one or both eyes. Oversized canulae were being used and the bleeding room had about 13 trevises with little or no effort to maintain aseptic conditions. Needless to add, the mortality rate was very high.

At Bengal Chemicals, Kolkata, we found horses in broken and dilapidated stables so small that the

animals could barely move. In addition to the now familiar blindness and oozing wounds, birds freely nibbled at them. Sterile conditions were an impossible, unreachable ideal during the routine bleeding using a trocar and canula. At King's Institute of Preventive Medicine bleeding, was done on verandahs, with pools of stagnant water and filth all around, on sick animals suffering from dermatitis, maggots and infected wounds. The carcasses of dead horses could be seen lying uncleared in open spaces. Death records showed a mortality rate of over 80 horses a year.

At Vins Bioproducts (Pvt. Ltd), Hyderabad, authorities had no knowledge of equine care and management. Immunisation/bleeding was done in an open shed. The bleeding of pregnant mares frequently resulted in birth of blind foals.

The CPCSEA moved a petition in the Supreme Court, producing as evidence with relevant records, the six to eight inch gauge needles that were being used. The Supreme Court, in a favourable verdict, gave CPCSEA authority to inspect and close some of these institutes and made it mandatory that CPCSEA protocol be



**Wounded and sick horse, Bengal Chemicals, Kolkatta.**



**Acute dermatitis in a horse used by King's Institute, Chennai, now rehabilitated with the CPCSEA (inset: horse had an ingrown hoof).**

used for Care and Use of Equines in the Production of Biologicals. Meetings were held with scientists of the various institutions to evolve protocols for bleeding and definition of health parameters.

**Today, over 200 horses have been rescued and rehabilitated by CPCSEA. Bengal Chemicals, under order from the Court, has increased the size of stables, constructed hospital and treatment rooms and purchased necessary equipment.** The bleeding room has been made sterile, air conditioners have been installed, and a disinfectant footbath has been provided outside the anti-mortem room. A separate post-mortem room has also been constructed. **At King's Institute the animal house has been improved with 75 lakhs granted to it by the State Government after the Supreme Court order.** Only a fraction of this amount was used in the betterment of the facility, yet an excellent new bleeding room was

created, hygiene of the animal housing has improved drastically and good quality feed is being given to the horses. **King Institute can now serve as a model for vaccine producing laboratories across the country.**

Meanwhile, VINS has gone on record to state that implementation of the CPCSEA guidelines has resulted in reduction of the mortality rate from 20 percent to less than 8 percent and incidence of sickness by more than 80 percent.

#### **Practices at Maulana Azad**

One institute that has constantly pitted itself against CPCSEA is Maulana Azad Medical College. Like NII, they blocked entry and inspection several times before inspectors were able to enter. The staff, lurching at the time of inspection, seemed not to notice the overpowering stench of filthy rat, mice, and rabbit cages. Irritated at the interruption, sullen staffers opened various doors to reveal sheep with maggot wounds, guinea pigs with

gaping wounds on their back, mange mites and dermatitis in rabbits, rabbit cage trays infested with mites, fungus and decayed faeces. It appeared that the rabbit rooms are cared by a person who is frequently on leave. So breeding rabbits had been left without water and food (despite the common knowledge that breeding rabbits require up to four times their normal diet). Mice in trays had made nests in their own accumulated faeces. A sprinkling of pellet feed was found in the rat and mouse cages, some dried and yellowed cauliflower leaves picked up from the vegetable market was being fed to the sheep, rabbits and guinea pigs. The in-charge tells us there will be an 'audit objection' if the diet is changed or increased.

It is strange but true that experiments are actually being conducted in the premises of this filth ridden animal house despite the sheer lack of experimental equipment. Dr. Sarin, a gastro enterologist at the neighbouring G.B.Pant Hospital, houses his rabbits in the Maulana Azad Medical College Animal House in a locked room (the keys of which are only in the possession of the animal attendant, his ex-gardener). Undeterred by the lack of facilities, Dr. Sarin's students pack rabbits into a pink, lidded plastic vegetable basket and carry them 14 kms away to the Patel Chest Institute of Delhi University to monitor their blood pressure! Dr. Sarin's animal attendant had not arrived and the doctor, telephonically contacted, refused us entry. At about 2pm the attendant arrived and we had the doors opened, only to see the ghastly site of 17 adults and six new born rabbits without food or even a drop of water in the same conditions of degradation and filth as elsewhere in the Animal House. Animals were desperate with thirst and hunger, lapping at water we poured into their bowls.

## Treatment of Laboratory Dogs

CPCSEA rules do not permit contract regulatory testing for multinationals or foreign companies. At the time of notifying this rule, a vocal critic of CPCSEA was an Indian testing facility, later found to be in the possession of 275 beagles, most of them sick and deformed with inbreeding. The Institute agreed to hand over all the dogs for rehabilitation to CPCSEA on condition that its name would not be revealed.

The worst critic of CPCSEA has been the pharmaceutical lobby. In 1998, the Organisation of Pharmaceutical Producers of India wrote to CPCSEA claiming 'exemption' from rules: they claimed that there were highly trained personnel in pharma companies and they "incorporate an animal house maintained according to high standards of hygiene and environmental practices". CPCSEA was in for a surprise when they found that behind the formidable corporate image of these pharma companies lay animal houses that did not meet basic requirements of hygiene, let alone maintain international standards. It became clear why such companies, unwilling as they are to invest in infrastructure, did not want citizen monitoring of their facilities.

A multinational pharmaceutical company in India kept over 30 Beagles on mesh flooring for years until CPCSEA forced them to change the housing system. These dogs have been inbred for three generations and according to records, some have suffered from such diseases as leptospirosis and hepatitis. When CPCSEA disallowed regulatory testing on the dogs, the pharma company complained to the Prime Minister that a new drug discovery was being hampered by CPCSEA! The firm forgot to mention that they have no record of drug



**Clandestine experiment at the AIIMS on a mongrel dog picked off the road.**

discovery in India and earn their money by 'reverse engineering' of drugs already available abroad.

### Using Stray Dogs

It is against CPCSEA regulations and norms of serious scientific endeavour to use stray dogs picked off the roads for experiments, but some scientists have constantly tried to flout these rules, expressing anger and dismay when caught. In January 2001, CPCSEA confiscated three mongrel dogs from Maulana Azad Medical College, New Delhi which were allegedly being used for '*in vivo* organ regeneration': the researcher had removed their fallopian tubes and was trying to regenerate them. The dogs, desperate with pain, were found locked in tiny damp kennels in an animal house that had not had a veterinary doctor or a consultant vet for over eight years. The researcher, Dr. Matapurkar had neglected to mention in his published paper that he had picked the dogs off the streets, that he did not have IAEC clearance for his experiment and his dogs were being fed raw meat and bones once a day with no records of weekend feeding. On a discussion forum on television, Dr. Matapurkar said that the

concern of the scientist was with experimentation while care and upkeep of animals was the job of other staffers. That there are many subscribers to this philosophy was proved when an emaciated, forgotten dog was found on the premises of the Indian Veterinary Research Institute (IVRI), Izatnagar, locked in an unused kennel, lapping its urine but wagging its tail nevertheless. The researcher, nowhere to be found, had apparently left on holiday for the weekend. In another case, an anonymous phone call alerted us to a clandestine experiment being conducted in the Department of Pharmacology at AIIMS in April 2001. The Head of Department, Dr. S.K.Gupta had even posted security guards outside the room where two mongrels under anesthesia were being used for a popular 'guessing game' experiment that forms part of the pharmacology syllabus: a mystery substance would be administered to the dog and students guess which chemical it was by looking at the blood pressure reading. When found red handed, Dr. Gupta was stunned: he could not believe that his own students had blown the whistle on him! □