

ANIMAL HOUSE, ACTREC: Annual Report - 2006

The main activity of the Animal House (AH) at ACTREC is to breed, maintain and supply laboratory animals to institutional researchers. Besides breeding and maintenance, the AH ensures rodent quality control through routine testing for microbiology, clinico-pathology, genetic monitoring, T- and B- cell profiling of immuno-compromised mice, and in addition undertakes stringent animal feed testing.

During the year 2006, the AH undertook planned breeding of 17 mouse strains, 1 rat strain and 2 hamster strains, and supplied 3047 mice, 313 rats and 184 hamsters to institutional researchers against 31 on-going and 12 new research proposals involving animals. The AH also supplied 1012 mice of 10 strains (including 2 nude and 1 SCID mouse strain/s) and 20 rats of SD strains as breeding pairs or surplus experimental mice, to 11 CPCSEA-registered animal facilities across the country.

In 2006, the AH tested 1236 animal samples for microbiology, 859 for clinico-pathology and 66 for serology. To check animal purity, skin graftings were carried out in 60 mice and 8 rats. Among biochemical markers, 86 mice were tested for Hbb, 55 mice for Car-2, 66 mice for Idh-1, 66 mice for Mod-1, 75 mice for Es-1, 66 mice for Gpi-1 and 66 mice for Gpd-1. For genetic monitoring, 32 SNP tests of SNP ID no. M-01609_1 and ID no. M-05799 were carried out on DNA samples of A/J, BALB/c, BDF-1, C3H/J, C57BL/6, CD-1, DBA/2, FVB/NJ, ICRC, Sencar, Swiss and Swiss bare mice.

In order to improve the housing conditions of nude/ SCID mice and to improve the quality of these animals, the AH procured 7 individually ventilated caging systems (IVCs) this year. Besides the existing 220 mice cages in positive pressure isolators, the IVCs now house 896 cages of immuno-compromised mice. To ascertain the purity of nude and SCID mice, T-cell profile was examined in 43 nude mice while both T- and B-cell profiles were examined in 18 SCID mice using flow cytometry.

Publications

1. Pandey U, Sarma HD, **Ingle AD**, Kulloli BS, Samuel G and Venkatesh M: Radioactive skin bandages incorporating ³²P for treatment of superficial tumors. Cancer Biother. Radiopharmaceut. 21 (3): 257-262, 2006.

2. Indap MA, Bhosale S, Shinde AD, Barkume MS and **Ingle AD**: Tumour response to quercetin, a bioflavonoid with some promises in therapy. Indian J. Pharm. Sci. 68 (5): 570- 574, 2006.

Other Achievements

Dr. Ingle AD

1. Invited Lecture: 'Laboratory animals - risk assessment and control', Bombay Veterinary College, Mumbai: January 10, 2006.
2. Participant: Harlan Continuing Education Conference 'Laboratory Animal Science', Hotel Leela Kempinski, Mumbai: January 16-17, 2006.
3. Participant: GLP Seminar on 'Relevance of GLP in risk assessment of crop protection chemicals, biotech products, and drugs and pharmaceuticals', International Institute of Biotechnology and Toxicology, Chennai: March 11, 2006.
4. Invited Lecture: 'Animal models in biomedical research', Bhabha Atomic Research Centre, Mumbai: April 19, 2006.
5. Training Imparted: 'Microbiology and genetic monitoring of rodents', Dr. Sandeep Bhingawade, Nicholas Piramal Research Centre, Mumbai, July 31-August 4, 2006.
6. Invited Lectures: (a) 'CPCSEA and Animal Welfare', (b) 'Role of institutional animal ethics committee in improving animal welfare and quality of animal experiments', (c) 'Microbiology of laboratory rodents: national and international scenario', National Conference on 'Rational use of animals in research', National Institute of Nutrition, Hyderabad: November 1-2, 2006.
7. Workshop Co-ordinator: 'Production of quality laboratory rodents', ACTREC, Navi Mumbai: December 14-15, 2006.
<http://www.actrec.gov.in/AH-Workshop-2006/ah-index.htm>
8. Invited Lectures: (a) 'CPCSEA and animal welfare', (b) 'Importance and principles of autoclaving', (c) 'Animal nutrition and composition of feed', (d) 'Personal hygiene and animal safety', Workshop on 'Production of quality laboratory rodents', ACTREC, Navi Mumbai: December 14-15, 2006.