

# ANIMAL EXPERIMENT



by Bryan Grimmelt

Many of the important issues on the use of Laboratory animals in Canada were explored at the Fall Symposium of Atlantic Provinces Interuniversity Council held at the Atlantic Veterinary College on November 14/87.

The organizer of the event, Dr. J. Amend, said "the most important thing is to keep everybody fully conscious of how acutely aware we have to be of the quality of animal care".

In Canada just under two million animals a year are used in testing and research.

Dean Thomson described the structure, functions, and curriculum of the Atlantic Veterinary College to begin the Symposium.

Dr. Fred Markham, Associate professor of Immunology at A.V.C. opened the sessions with a discussion on the use of fish in research. "I suspect that the interest in using fish as research animals will increase as time goes on" Markham said. Fish are presently the third most common animal, behind rats and mice, used in laboratory research.

The reasons for the increased use of fish in research are "because they are there" (a basic motivation for all science), because they are very useful "to detect and assess the effects of pollutants" and because of the increased interest in Aquaculture, Markham said.

Fish are being used in bioengineering studies including transfer of specific genes into salmon eggs.

Dr. Rick Cawthorn, Associate Professor of Parasitology at A.V.C., followed up with a very interesting seminar on some of the common parasitic or-

ganisms which are transmitted between animals and man. Cryptosporidiosis is one of the major diseases which kills immunocompromised individuals including AIDS patients, Cawthorn said.

This organism is very common in calves, lambs, goats, and companion animals and is often passed from people to people in day-cares, bars, by sexual practices, as well as from contaminated food and water. Two other common diseases transmitted from animals to man, Toxoplasmosis and Giardiasis (Travellers Diarrhea), were discussed. The spread of all these organisms is "easy enough to control with education and Hygiene", (including boiling your drinking water when in strange places) Cawthorn said.

The presentation by Dr. Carolyn Runyon, Associate professor of Orthopedics at A.V.C., on reintroducing the river otter into Iowa, was a refreshing description of how scientific knowledge, properly applied, can work with nature.

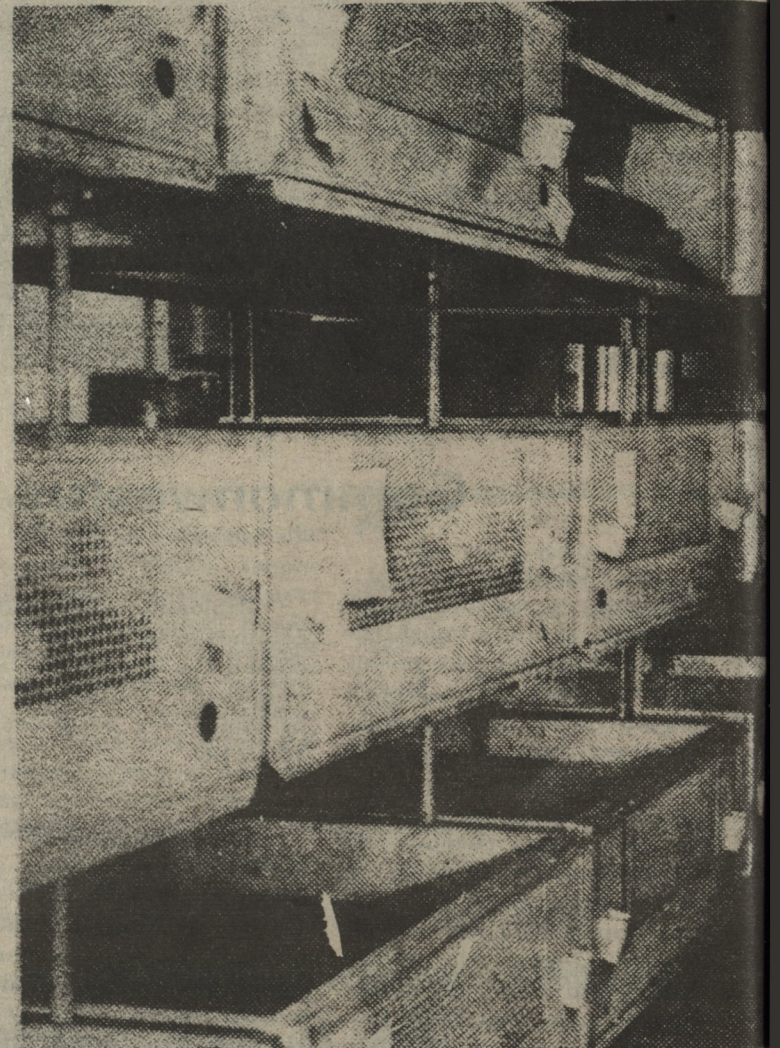
Dr. Andy Tasker, Assistant Professor of Pharmacology at A.V.C., discussion on "Pain and Stress in animal research" brought into focus the "nebulous concept"

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that what is upsetting to a human is upsetting to an animal. "We tend to, as humans...apply our own standards to animal populations both for what we consider innocuous and harmless and what we experience as pain", Tasker said.

Where a hysterectomy results in extreme and extended pain in humans possibly due to tremendous emotional overlay, in dogs and cats the use of anesthetics is felt to be more stressful than the pain associated with the operation because of the clouding of sensory functions.

We cannot extrapolate human behavior in periods of pain and stress to animals, Tasker said. Rats, the most common animal used in research, will curl up and become almost cataleptic when



under severe stress. This anxiety is easily overlooked by people unfamiliar with this aspect of rat behavior, Tasker said adding "We as researchers define levels of pain and stress that are specific to each species, not only for political purposes, but for purposes of personal and scientific integrity."

Dr. Bill Rapley, Director of Animal care at the University of Western Ontario, followed with a talk on "Bioethical Considerations for the Animal Research Facility". Since the University of Western Ontario has been the primary target for animal rights groups, Rapley finds

his position to be "jammed in the middle and everybody is coming from all directions". "Animal rights groups send me hate mail" Rapley said.

He pointed out that defence of the need of animal research is a difficult area because the media is very hungry for sensationalist stories which animal rights groups rely on and where distortions are easy and common.

In the extremist Animal liberation groups the "major players are few and very vocal, the number of truly fanatical people is very limited" Rapley said. Every-