

NAEAC **news**

Official Newsletter of the National Animal Ethics Advisory Committee

Issue No. 18

July 2002

Chair's piece

A summary of the recently held series of workshops jointly sponsored by NAEAC and MAF for external members of Animal Ethics Committees (AECs) will be reported in the next issue of NAEAC News.

The workshops were well attended and well received and have again highlighted the important role of external members in the application approval process. In this regard I would like to draw the attention of AEC Chairs to the AEC Service Awards section in this edition of NAEAC News and ask you to consider nominating members of your AEC, who have made outstanding contributions to the work of your committees, for such awards.

This edition also introduces our two new NAEAC members and our new NAEAC Secretary, and features items that will be of interest to readers. This includes a report from the Chair of the AgResearch Ruakura AEC on the recent ANZCCART workshops on the welfare of transgenic animals, a personal perspective from an AEC member's experience on an AEC, and a piece from one of our NAEAC members commenting on her first eighteen months as a NAEAC member.

Wyn Hoadley
Chair

Inside this Issue:

<i>Chair's piece</i>	1
<i>Arthur Guyton Award For Excellence</i>	1
<i>NAEAC Policy Statements</i>	2
<i>AEC Service Awards</i>	2
<i>How Can NAEAC Foster a Culture of Care</i>	2
<i>New NAEAC Secretary</i>	3
<i>Member Profiles</i>	3
<i>News Round Up</i>	4
<i>ANZCCART News</i>	5
<i>A Lay Term</i>	5
<i>Animal Ethics Committee Membership: - A Personal Perspective</i>	6
<i>Accredited Reviewers</i>	7
<i>Codes Of Ethical Conduct – Approvals, Notifications & Revocations</i>	8
<i>Report on the ANZCCART Workshops on Welfare of Transgenic Animals</i>	9

Arthur Guyton Award For Excellence In Integrative Physiology From The American Physiology Society

NAEAC member and senior lecturer at the University of Auckland, Dr Simon Malpas recently received this prestigious award. The award was made for the analysis of the mechanisms by which the brain controls blood pressure. Research indicates that the brain plays an important part in long-term blood pressure regulation and possibly the development of high blood pressure. In particular, new technology has been developed which allows wireless monitoring of cardiovascular signals. This technology is likely to improve the quality and quantity of information obtained in animal-based research, ultimately resulting in a reduction in the number of animals used.

NAEAC Policy Statements

From time to time NAEAC issues policy statements. The following is a list of policy statements currently in existence:

- Guidelines for drafting an animal ethics committee protocol application
- Guidelines for animal ethics committees on adequate monitoring
 - Guide on codes of ethical conduct
 - Genetically modified animals
 - Site visits.

AEC Service Awards

From time to time NAEAC makes awards to animal ethics committee members, on the nomination of their animal ethics committee, for making an outstanding contribution.

Last year, NAEAC made awards to:

- a staff member of the Christchurch School of Medicine AEC (18 years service)
- AEC Secretary and committee member, and animal facility manager for 26 years of the Christchurch School of Medicine AEC
- the New Zealand Veterinary Association (NZVA) nominee of the Victoria University of Wellington AEC (9 years service)
- the Royal New Zealand Society for the Prevention of Cruelty to Animals (RNZSPCA) nominee of the Victoria University of Wellington AEC (10 years service)
- the layperson of the Victoria University of Wellington AEC (8 years service)
- the NZVA nominee of the AgResearch Ruakura AEC (16 years service)
- the RNZSPCA nominee of the AgResearch Ruakura AEC (11 years service)
- the RNZSPCA nominee on the Landcare Research NZ Ltd AEC (11 years service)
- the NZVA nominee on the Landcare Research NZ Ltd AEC (11 years service)
- the RNZSPCA nominee of the University of Otago AEC (11 years service)
- the RNZSPCA nominee of the AgResearch Wallaceville AEC (15 years service) (awarded posthumously).

If your AEC has a member you consider to be worthy of an AEC service award from NAEAC please contact NAEAC's secretary.

How Can NAEAC Foster a Culture of Care?

1 Introduction

The Animal Welfare Act 1999 (section 10 and specifically section 80(2)(a) and (b)) makes specific reference to the 'duty of care' measures to be taken to reduce the animal welfare impact associated with the use of animals in research, testing and teaching.

In contrast to this legal requirement, the concept of 'culture of care' is an attitude and commitment to humane science that encourages researchers to create an environment of compassion and to apply any additional measures that might be taken to further enhance the wellbeing of such animals.

2 Policy Statement

NAEAC wishes to encourage scientists, technicians and animal ethics committee (AEC) members to provide the best possible culture of care to improve the wellbeing of animals used in research, testing and teaching.

3 NAEAC Actions

To support the above policy statement NAEAC will:

- develop good practice guides for animals used in research, testing and teaching;
- through *NAEAC News*, inform AECs of actions taken by New Zealand researchers that have resulted in improved animal welfare;
- through *NAEAC News*, bring to the attention of the New Zealand research community relevant material from the international literature;
- promote awareness of relevant guidelines (eg the ANZCCART student guidelines);
- sponsor conferences that promote a commitment to humane science.

New NAEAC Secretary

NAEAC's secretary for the past two years, Kathryn McKinnon, has transferred from MAF's Animal Welfare Group to take up a position as a solicitor in MAF's Legal Section. We wish her well in her new role and welcome her successor, Kate Hellström.

Kate holds a Bachelor of Science in Zoology, and a First Class Masters in Resource and Environmental Science. After graduating from Massey University, she spent some time working at the Veterinary Council of New Zealand, before heading overseas for more than two years. During this time, she worked in London for the Law Society for England and Wales, where she assisted in the implementation of a large IT project. She also travelled extensively through Europe, Asia and Africa.



Kate Hellström



Member Profiles

In this issue we feature the two newest members of NAEAC.



Simon Malpas

Dr Simon Malpas was appointed to NAEAC by the Minister of Agriculture late last year for a three-year term. He was nominated by the Health Research Council of New Zealand to provide knowledge and experience in medical research and the manipulation of animals for research, testing and teaching purposes.

Simon is a Senior Lecturer in the Department of Physiology at the University of Auckland. He is head of the Circulatory Control Laboratory whose research focuses on the brain control of blood pressure specifically in the development of high blood pressure. This group leads the world in the development of equipment and software for recording signals that regulate blood pressure. He has previously been a member of the University of Auckland's Animal Ethics Committee and his research involves the use of a variety of animal models for human diseases.



Dr Kathleen Parton was also appointed to NAEAC by the Minister of Agriculture late last year for a three-year term. She was nominated by the New Zealand Veterinary Association to provide knowledge and experience in veterinary science and the manipulation of animals for research, testing and teaching purposes.

Dr Parton is a Senior Lecturer in Pharmacology, Toxicology and Small Mammal Medicine at Massey University in the Institute of Veterinary, Animal and Biomedical Sciences. Kathy has a Bachelor of Science and a Doctor of Veterinary Medicine degree from Kansas State University. She completed a residency in Laboratory Animal Medicine and a Masters of Science in Pharmacology and Toxicology at the University of Arizona.



Kathleen Parton

Dr Parton's current research interests include the study of the pharmacokinetics and safety of nonsteroidal anti-inflammatory drugs in cats, the detection of isocupressic acid, an abortifacient of cattle, in macrocarpa and other *Cupressus* species, an inherited lower motor neuron disease of Romney lambs and the identification of *Helicobacter mustelae* infections in New Zealand pests i.e. possums and stoats. She is an author of the New Zealand book *Veterinary Clinical Toxicology* 2nd edition.

News Round Up

A summary of items of interest from the newsletters and journals which cross our desks.

Altweb pain management database

A new database on pain management went on line. It includes information on anaesthesia and analgesia for many species and information on drugs and side effects citing publications involving laboratory animals or relevant human studies. The address is:
<http://www.altwebsearch.com/aadb/>

*Netherlands Centre Alternatives to Animal Use Newsletter,
No. 11, October 2001*

Humane endpoints replace lethal parameters in vaccine quality control

This article describes the work of a group called HELP (Humane Endpoints for Lethal Parameters) established with the support of the European Centre for the Validation of Alternative Methods (EVCAM). The group identifies and validates humane endpoints and makes recommendations for codes of best practice in challenge tests. The article goes on to refer to three specific tests for pertussis vaccine, rabies vaccine and swine erysipelas vaccines and the reduction in animal suffering brought about through the use of humane endpoints.

Details are given for sources of further information.

*Björn Steen, Netherlands Centre Alternatives to Animal Use
Newsletter, No. 12, March 2002*

The European Resource Centre for Alternatives to Animal Use in Higher Education (EURCA)

EURCA actively promotes the use of animal free models in education. It aims to support teachers to be more creative in their approach to teaching and learning and to reduce the numbers of animals used unnecessarily in teaching. Their website (<http://www.eurca.org>) offers product descriptions, reviews, additional educational resources and user comments as well as background information on the use of animals in education. EURCA is also interested in learning of examples of teaching materials produced to support the use of alternatives.

*Jasmijn de Boo, Netherlands Centre Alternatives to Animal
Use Newsletter, No. 12, March 2002*

ILAR Journal

Volume 43(1), 2002, is devoted to the topic of the implications of human-animal interactions and bonds in the laboratory. Two articles are specifically referred to below.

Ethical aspects of relationships between humans and research animals

This article discusses the bond that often forms between animal care staff and laboratory animals and the consequences of this. A number of recommendations are made, including one that an animal care technician should be appointed to the organisation's ethics committee. Although not a legal requirement (nor is it in New Zealand), this policy enables the valuable insights of technicians to be taken into account when protocols are evaluated. It also gives animal care staff the message that the organisation takes their ethical concerns seriously.

Harold Herzog, ILAR Journal, Vol 43(1), 2002

An additional 'R': Remembering the animals

This article suggests that organisations using animals for research and teaching should acknowledge the use of animals and the human-animal bonds this creates by organising a ceremony to pay tribute to the animals. The pros and cons of developing and establishing acknowledgement activities in addition to the benefits of implementing such events are discussed.

Susan A Iliff, ILAR Journal, Vol 43(1), 2002

Volume 43(2) covers mouse models of human disease. The following article may be of interest to some organisations.

Welfare Issues of Genetically Modified Animals

This article discusses the areas of research aided by the creation of genetically modified animals, welfare issues associated with production, sources of information to help predict problems, tools available to prevent or limit welfare problems, issues relating to institutional animal care and use committees (the US equivalent of NZ AECs) and strategies for addressing welfare problems.

Melvin B Dennis Jr, ILAR Journal, Vol 43(2), 2002

ANZCCART News

As readers of *ANZCCART News* will be aware, ANZCCART is unable to publish printed copies of *ANZCCART News* for financial reasons, at least during 2002. The newsletter will continue to be published in electronic format. It is available on the ANZCCART website or can be received by email.

The March 2002 issue is available now and can be viewed on, or downloaded from, the ANZCCART website: www.adelaide.edu.au/ANZCCART/

Alternatively, ANZCCART is developing an email list to distribute the newsletter. Please contact anzccart@adelaide.edu.au to be added to the mailing list.

NAEAC believes that *ANZCCART News* is a valuable resource for all those involved with the use of animals in research, testing and teaching and urges all animal ethics committees to make arrangements to ensure that all AEC members and other relevant staff continue to receive the newsletter.



A Lay Term

Eighteen months ago, I arrived at my first NAEAC meeting swamped, almost drowning, in information. The efficient secretary was certainly making sure I had access to everything I needed to know to become an effective member of the team. Almost daily, the now familiar MAF envelope would fill my mailbox. It was becoming a sink or swim decision!

Having been a rural district councillor for the past nine years, any reference to the Three Rs usually meant either rates, roads and rubbish, or reduce, reuse, recycle. Now I was rapidly being introduced to another frame of reference that included promotion of the Three Rs of reduce, refine, replace.

At the time of my appointment, the new Animal Welfare Act had only recently come into force, and for me, a lot of reading was required to gain insight and understanding of what had gone before. Submerged in the writings of Singer, Russell & Burch and others, scientific research publications that required constant reference to my medical dictionary, and populist publications with emotive articles, I was struggling to clarify exactly what my role was.

The sinking stopped and the swimming began with the June 2001 ANZCCART/NAEAC conference in Hamilton. Listening to so many top class speakers clarified much of my reading and began to give me a focus, which was built on with site visits at Massey University and AgResearch Ruakura, observing the workings of an AEC, a strategic planning workshop, and most importantly, support from NAEAC colleagues whose diversity always ensures a wide-ranging response to my many questions!

Eighteen months on I have a greater understanding of the Animal Welfare Act 1999, specifically Part 6, which responds to the concerns and views of New Zealanders. The challenge for all involved lies in its application.

Fulfilling the role of lay person on NAEAC, focusing on the public link/liaison/viewpoint is continuing to extend me, and dinner table conversation at our home is always stimulating! I am now acutely aware of the irrationalities in us all when the subject of ethics and the use of animals in research, testing and teaching is introduced!

Joanna Roberts, lay representative on NAEAC, nominated by Local Government New Zealand



Animal Ethics Committee Membership: - A Personal Perspective

Introduction

In May 1995 I was nominated by the New Zealand Veterinary Association to be its veterinary representative on the New Zealand Forest Research Institute Animal Ethics Committee. Also on that committee is a nominee of the Royal New Zealand Society for the Prevention of Cruelty to Animals and a lay person nominated by the Rotorua District Council.

Scope of research

The primary research project has been based on studying the environmental effects of effluent discharges from the Norske-Skog Tasman paper mill, the Carter-Holt Harvey (CHH) mill (both at Kawerau) and the combined effects of these discharges on the aquatic life in the Tarawera River. This study has targeted the general health and reproductive performance of rainbow trout (*Oncorhynchus mykiss*) mainly, but also the effects on eels, goldfish, inanga (whitebait), mosquito fish, bullies, freshwater clams, mussels and *Daphnia*. As well as the toxic effects of effluent, studies on the effect of reduced dissolved oxygen and interactions with effluent are also being examined in the above species.

Forest Research has established research facilities at Kawerau and Rotorua using large holding tanks where effluent concentrations can be closely controlled and monitored.

This internationally recognised research programme aims to measure the impacts of human activity on the environment and in particular the effect of pollution on freshwater fish.

This study initially involved Forest Research, Tasman Pulp and Paper and Carter-Holt Harvey. Now Forest Research, in collaboration with Landcare Research NZ Ltd, the Ministry for the Environment, Environment Bay of Plenty, the Foundation for Research, Science and Technology, the University of Waikato, regional and district councils, local pulp and paper industries and local iwi are all working together on this project. Interested parties are now also planning to extend the studies in the future to cover the effects of urban sewerage, dairy factory and other industrial effluent on our natural waterways. This combined research programme will enable Forest Research to become a national and international force in the use of biological tools for aquatic environmental resource management. This expansion will

lead to an increase in scientific activity, an increased involvement of animal ethics committee members and also an increase in the number of animals used in future trials.

The results of these studies will give the authorities and the industries a much better understanding of the problems that may arise from effluent disposal, and the possibility of removing any potentially harmful products from these discharges. This will, of course, result in an improvement in the water quality of our rivers, streams and ocean outlets which are affected by effluent discharges.

Experience on an animal ethics committee

My involvement over the last six years on the Forest Research Animal Ethics Committee has been a very interesting and rewarding experience. These studies are unique and are being carried out in a very professional and scientific manner by a Forest Research team lead by an aquatic ecotoxicologist originally trained in Canada.

The committee in general has no moral problems with the ethics and basic aims of the studies and of the procedures used so far. The animals used in the trials are housed in excellent facilities under very strict supervision and conditions. The studies so far have not caused overt ill-health in the fish except in TC 50 trials (Toxic Concentration). Only a small number of TC 50 trials have been carried out and these have been carried out under internationally accepted criteria. Acute lethality trials are a legislative requirement for some resource consent applications and serve to give an indication of the relative toxicity of the effluent or wastewater.

In some trials fish are sacrificed for post-mortem and enzyme and hormone levels are assayed. These fish are euthanased by very humane means such as MS 222 overdose. Once again minimal numbers are euthanased and ironically these fish are euthanased in a much more humane way than those caught by recreational and commercial fishers.

The fact that the fish are kept in such good conditions and the fact that a great majority of trials have not lead to overt ill-health eases the burden on the committee when making decisions.

In some groups of fish, growth rates have been better in

effluent than controls (possibly because of more nutrients in the effluent) but growth rate alone can be a misleading criterion for general health. Some paper mill effluents contain sex hormone analogues, which can alter the breeding capacity of fish. Long-term rainbow trout studies and short-term mosquito fish laboratory bioassays have been followed up. Exposure to pulp and paper effluent induces a significant proportion of female mosquito fish to develop the male sexual organ and exhibit aggressive male behavioural characteristics. Rainbow trout experiments ranging from two months to 10 months duration have shown abnormalities in effluent exposed fish involving changes in ovary size and egg size.

A good relationship exists between the animal ethics committee and the scientists of Forest Research but having said that, the committee does not “rubber stamp” proposals. All proposals are formally presented, discussed and modified (if need be) before being approved.

The pressure of being on this animal ethics committee is minimised because:

- the experiments have minimal impact on the overt health of the animals used
- there is no pain factor involved in the experiments
- the animals are kept in excellent facilities under optimal conditions
- the trials have the potential to greatly benefit the environment
- the trial protocols are very professionally presented
- the relationship between the animal ethics committee and the Forest Research team is excellent
- trial animals are not mammals, which reduces a lot of stress in decision-making
- where necessary, euthanasia is carried out humanely and the majority of trial animals are released after experimentation, where appropriate.

As an animal ethics committee member it is rewarding being involved in a high quality research project which has the potential to greatly improve the water quality of many of our waterways and also has minimal impact on the overall health of the animals in the trials.

*New Zealand Veterinary Association nominee
New Zealand Forest Research Institute Animal Ethics
Committee*

Accredited Reviewers

Organisations with a code of ethical conduct are required to undergo a review from time to time. Reviews must be carried out by independent reviewers accredited by MAF for the purpose in accordance with section 109 of the Animal Welfare Act 1999.

The following individuals have been accredited to carry out independent reviews

Title and Name:	Dr Angenita Blanche Harding	Dr Kenneth John Patrick Cooper
Address:	AgriQuality NZ Ltd Private Bag 3080 Hamilton	61 Amapur Drive Khandallah Wellington
Telephone:	07-8341777	04-479 5092
Facsimile:	07-8385846	
Email:	Hardingn@Agriquality.co.nz	
Date of approval:	29 May 2002	1 July 2002
Expiry date of accreditation:	28 May 2007	30 June 2007

Codes Of Ethical Conduct – Approvals, Notifications & Revocations

If you would like to check on whether a particular organisation has an approved code of ethical conduct please contact this office.

Codes of ethical conduct approved since 1 December 2001 (pursuant to section 91 of the Animal Welfare Act 1999)

- PharmVet Solutions

Amendments to codes of ethical conduct approved after consultation with NAEAC (pursuant to section 96 of the Animal Welfare Act)

- AgResearch Ltd

Notifications to MAF of minor amendments to codes of ethical conduct made during 2001 (pursuant to section 95 of the Animal Welfare Act)

- Nil

Notifications to MAF of arrangements to use an existing code of ethical conduct since 1 December 2001 (pursuant to section 192 of the Animal Welfare Act)

- Novartis Animal Health Australasia Pty Ltd (to use AgResearch Ltd's code and the Ruakura Animal Ethics Committee)
- Parnell Laboratories NZ Ltd (extension of arrangement with AgResearch Ltd (Ruakura AEC) to cover all New Zealand)
- Pharm Vet Solutions (to use South Greta Farms' code)
- Ward, Christopher G (to use Waikato Institute of Technology's code)
- Wool Research Organisation of New Zealand (Inc) (to use Lincoln University's code)

Codes of ethical conduct revoked since 1 December 2001 (pursuant to section 96 of the Animal Welfare Act)

- Nil

Revocations of approval to use an existing code of ethical conduct since 1 December 2001 (pursuant to section 96 of the Animal Welfare Act)

- Agriculture New Zealand Ltd (Rangiora)
- Medlab Hamilton

Revocations of approval because approvals personal to code holder (pursuant to section 93 of the Animal Welfare Act)

- Nil

Notification of termination of arrangements under the former Department of Education code of ethical conduct for state and integrated schools since 1 December 2001

- Feilding Agricultural High School (Massey University AEC)

Termination of arrangements made pursuant to section 192 of the Animal Welfare Act

- Parnell Laboratories NZ Ltd (to use Lincoln University's code for South Island projects)
- PharmVet Solutions (to use South Greta Farms' code)

Approvals by the Director-General of MAF for the use of non-human hominids (pursuant to section 85 of the Animal Welfare Act)

- Nil

Approvals by the Minister of Agriculture of research or testing in the national interest (pursuant to section 118 of the Animal Welfare Act)

- Nil

Report on the ANZCCART Workshops on Welfare of Transgenic Animals.

I attended the workshop held at the University of New South Wales, Sydney, on 28 November 2001. The workshop was interesting in terms of the topics covered but overall was disappointing in that the presentations lacked detailed recommendations for AECs to act upon. Information on some of the recommendations for the monitoring of transgenic animals made by overseas organisations was distributed at the meeting.

The opening statements indicated that the outcomes of the workshop were to obtain:

- a better understanding of the ethical and practical issues involved with the welfare of transgenic animals;
- means to measure the welfare of transgenic animals, including the use of an audit tool.

Eventually there is the possibility of ANZCCART producing a set of guidelines. In my opinion only part of these outcomes were achieved. A number of the presentations highlighted the differences in the operating system for AECs under Australian law and that for AECs in New Zealand.

Ethical issues

The presentation by Miranda Gott on the *Ethical issues* was interesting in the issues raised and the problems of making ethical decisions on the use of transgenic animals. She highlighted that a “cost-benefit” approach could not be the only test of ethical acceptability as weighting had to be given to the intrinsic objections (based on religious or spiritual grounds). The cost-benefit model should cover the risk assessment on grounds of animal welfare, ecological effects, economic and social implications and possible effects on human health. Of particular concern was the production of transgenic animals, which will suffer a particular disease and where the benefits (or products) of the transgenic animal were not primarily for health, welfare or ecology. Does scientific curiosity or commercial efficiency itself justify the costs? One interesting statement made was that an application to produce transgenic rumen bacterial able to metabolise fluoroacetate (1080) had been rejected on ecological and environmental grounds. All decisions should be based on the potential impact and use of each specific transgene not on the process itself. It is difficult to distinguish this approach from some problems being experienced with normal breeding process for certain traits in food production animals.

Welfare of transgenic animals: What are the problems?

Denise Noonan, in addressing the *Welfare of transgenic animals: What are the problems?*, adopted the approach of highlighting the potential and known benefits that can be derived from use of transgenic animals both to human and animal health, before dealing with the welfare issues. The welfare issues raised were the uncertain outcome of the transgene (or deletion) and potential for pain and suffering. The large numbers of animals used to produce the genetically modified animal and the need to count all these animals used in the breeding process as well as those that are subsequently used in experiments. The low survival rate and gestational problems seen with transgenic livestock are of major concern (this was neatly illustrated by the appearance of an article, in the “Sydney Morning Herald” on the morning of the meeting, announcing that 9 out of 10 cloned lambs died at birth in a South Australian research centre). There is a need for increased monitoring of transgenic animals to determine their fitness in terms of development rate, behaviour, fertility, reproduction and ability to rear offspring.

Animal rights perspective

The presentation on the *Animal rights perspective* by Keith Edwards was disappointing in that it was almost identical to the excellent presentation made by a member of Animals Australia at the ANZCCART meeting in Adelaide in 2000. The main point was that they were against any use of animals for experimental purposes and are calling for its abolition. They will not accept that animals are tools for research. However, the section on primates in the New Zealand Animal Welfare Act 1999 was cited as an example where if this applied to all animals then acceptance of experimentation for the benefit of the animal involved or that species could be acceptable. Transgenics were not considered to be any different from other animal use. There is major concern about the lack of any informed public debate. They see no difference between rights of animals and humans and ask the question as to what stage would a transgenic animal with human genes be regarded as being human?

Lay member's perspective

The presentation on the *Lay member's perspective* by Jane Burns highlighted the problem lay people have in obtaining interpretable information, the need for AECs to have procedures to inform the lay representative and that the lack of understanding of the topic by the general public made it difficult for the lay person to represent this viewpoint. This was an interesting presentation and highlighted the difference in appointment of 'lay' representatives between New Zealand (where they are a nominee of a local territorial authority or regional council) and Australia (where they are not nominated by any organisation). A full copy of this presentation is in the latest *ANZCCART News*.

A scientist's view

The presentation on *A scientist's view* was made by Rosemary Sutton who works with transgenic mice that are used as models of cancer. She stressed the need to weigh the perceived benefit against the costs and to rigorously investigate the use of *in vitro* alternatives to using live animals. In this area of research it is essential that the time scales of the trials, dosages of drugs, measurements made and endpoints used are defined. These then should be redefined in light of experience with the first lot of such animals. She stressed the need to know the phenotypic response of different genotypes (with homozygous animals showing a higher incidence and more rapid development of tumours than the heterozygotes). Her main interest was in developing tests to diagnose the cancer much earlier and therefore start treatments earlier and thus minimise the time period of possible animal suffering. She stressed the regular (daily) monitoring of the animals by 'trained animal carers' and use of checklists to ensure the monitoring was complete. Animals should be examined for: - activity and dexterity; demeanour and behaviour; respiration rate; general appearance; functionality – (eating, drinking, urinating, defecating); bodyweight; tumour palpation; and blood testing or other earlier diagnostic tests.

How to measure the welfare of transgenic laboratory animals

Alana Mitchel presented the session on *How to measure the welfare of transgenic laboratory animals*. This was introduced by statement that while there had been a 20% drop in numbers of animals used in the United Kingdom over the last 10 years there

had been a marked increase (10 fold) in the numbers of transgenic animals being used and these now represented over 20% of all animals used. The Monash University Animal Ethics website contains documents on the policy for use of transgenic animals

<http://www.monash.edu.au/resgrant/animal-ethics/guidpol/tgpolicy.html>

and also on the monitoring of transgenic animals

<http://www.monash.edu.au/resgrant/animal-ethics/guidpol/tgguide.html>.

These are public websites and are well worth looking at.

The challenges for AECs that Alana Mitchel raised in this presentation are for AECs:

- to view each application to create transgenic lines of animals as **new** applications even if the protocols remains the same;
- to limit any such approval to 12 months and to require phenotype reporting, six monthly reporting on animal health and breeding performance and ensuring SOPs are in place;
- to convey the message that transgenic animals are not commodities and AECs need to require specific justification for each application (assess the possible effects of each transgene);
- to investigate a system by which transgenic projects can be effectively monitored for adverse effects, breeding ability and general animal welfare;
- to document the surveillance procedures and data gathering and emphasise that the people involved need to expect the unexpected.

How to monitor the welfare of transgenic farm animals

The session on *How to monitor the welfare of transgenic farm animals* was presented by John Barnett. This was a disappointing session as it revolved entirely about the theory of how one would implement an audit tool. This was based on his experience in developing an industry wide welfare audit for the chicken meat industry in Victoria. He distinguished between codes of practice being

minimum standards and welfare audits giving rise to best practice. However, he made little comment at all on the problems experienced with transgenic livestock and or the management of these problems.

Legislative control

Margaret Rose presented the final session on *Legislative control*. This dealt strictly with the differences between states and federal government legislation, and the organisations responsible for its implementation and mentioned the recent and upcoming change to legislation relating to animal welfare and gene manipulation. A review of a lot of the current legislation is either underway or being contemplated.

Discussion

The final session of discussion and summary was of interest in that there appeared to be agreement that one of the main things that needed to be recorded was the various animal welfare and performance problems that are seen with different transgenic lines of animals.

It would be desirable for this information to be compiled in a database that all research groups and particularly AECs could access. This information would prevent needless duplication of effort where there were welfare problems with specific genetic modifications and provide information to AECs that would enhance the quality of their decision-making. At the Sydney meeting it was suggested that given NAEAC's role of an umbrella organisation for all AECs in New Zealand that this should be something that NAEAC should look to do in New Zealand.

John Smith
Chairman, AgResearch Ruakura Animal Ethics Committee

***This newsletter is produced for the information of those interested
in animal welfare. It may be reproduced and distributed.***

All enquiries concerning NAEAC should be directed to:

The Secretary

C/- MAF Biosecurity Authority

P O Box 2526

WELLINGTON

Tel: +64 4 4744296

Fax: +64 4 498 9888

Email: naeac@maf.govt.nz

Editor: Linda Carsons

Editorial Committee: Wyn Hoadley, David Bayvel, Linda Carsons and Kate Hellström.

Layout and Distribution: Pam Edwards