

Blue sky to deep water: the reality and the promise

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Introduction

Blue skies and deep water reflects the reality of any human endeavour. We harbour both hopes and fears as a society, and as individuals and institutions, and are required to grapple with new issues, share experiences, challenges and dilemmas. The contributions to the Proceedings of the Australia and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) 2008 conference *Blue sky to deep water: the reality and the promise* held in Auckland, New Zealand, reflect the superb conference presentations dealing with science, values and the reality of understanding “backward running rats” and “cunning fighting fish”.

Animal Ethics Committees (AECs) are part of the social fabric surrounding the use of animals in research, testing and teaching. Sharing experiences of their compliance roles and the dilemmas they inevitably deal with, is the opening focus. Chris Prideaux, in *Doing animal experimentation in a national organisation with regional responsibilities under state legislation* introduces the breath of situations legislation has to deal with by virtue of Australia’s diverse geography and physical environment, scientific activities, and animals ranging from migratory marine fish to native species and livestock. The success of AECs relates to both keeping to the spirit of legislation and to the dedication of the people involved. *Meeting animal welfare needs in a biotherapies environment—challenges for the CSL/Pfizer Animal Ethics Committee* by John Phelps brings the perspectives from a commercial environment, particularly other regulatory demands, but also highlights the importance of continuity and stability of AEC membership and of balancing workload. This theme of balance is continued in Grant Shackell’s *Assessing a research project with reference to the big picture*. The search for genetic markers for resistance to disease is given context by considering

the impact of the disease and its prevalence. The costs for the animals involved are weighed against the likely outcome, a non-invasive test for assessing genetic predisposition to disease. The promotion of high standards of animal care through participation in a voluntary, peer-reviewed accreditation process is outlined by Kathryn Bayne. *International benchmarking: AAALAC International Accreditation* describes the role of the Association for Assessment and Accreditation of Laboratory Animal Care. In benchmarking animal care, performance is enhanced whilst retaining the diversity of beliefs essential in human-animal relationships.

The second session of the conference was devoted to transgenics and modelling, two well known but arguably less well understood technologies. Andrew Pullan describes the study of human health through the development of integrative biophysical models and computational frameworks. Set to revolutionise efforts to understand complex biological systems, *Modelling human muscle activity* promises to predict variability in gut motility and pain thereby enhancing the effectiveness of surgical operations. *Using zebrafish in human disease research: some advantages, disadvantages and ethical considerations* by Michael Lardelli describes the use of one of the more photogenic research animals, to research human conditions such as cancer and Alzheimer’s Disease. The theme of models for human disease is continued by Jessie Jacobsen in *The benefits of using sheep to model human disease*. Knowledge of neurodegenerative disorders, like Huntington’s Disease, is progressed with transgenic sheep with the promise of rapid development of treatments and therapies. The sheep, somewhat paradoxically since it is perceived by many as simple and mindless whereas we like to think of ourselves as complex

and intelligent, is a good model for this progressively debilitating genetic disorder affecting 5 in 100,000 New Zealanders.

The next section of the Proceedings is based on the reality of working with animals—“sometimes the techniques work, sometimes they don’t”. *Great idea but not necessarily what I expected* consists of contributions from Allan Goldenthal, Glen Harrison, Julie Hitchens, Jacqui Keenan, and Don Love. These valuable and honest accounts provide insights into the attitudes of rats to diet, exercise and their environment; the subjective nature of some regulatory requirements; and the serendipitous nature of science with the finding of a potential model for inflammation-induced colon cancer.

James Battye provides *A brief but practical summary of ethics* and I myself provide *Should we be giving attention to justifying animals in science?* in the session *Challenging ethics*. Ethics can be used to both support and challenge what we do, as much as we can challenge commonly accepted ethics. We are also reminded not to be patronising—values, part of all of us, are too important to be left to professionals.

The ANZCCART Student Award was presented to Mairi Stewart following her presentation *Infrared thermography and heart rate variability for non-invasive assessment of animal welfare*. Mairi’s paper is founded on the age-old dilemma that the observer and the observations affect the measures.

Death as an event, death as a challenge addresses an uncomfortable reality, the death of animals. Erich von Dietz, *Euthanasing animals—the human experience* and Dianne Gardner, *Managing grief associated with euthanasia*, deal with the emotional side of euthanasia through giving people an opportunity to reflect on their attitudes and experiences, and the things they do and can be supported with in order to lighten the moral stress. A more light-hearted but no less important prelude to death was given by John Schofield. *Recruiting rats to the research resort: the importance of well trained resort personnel* was likened to placing an elderly relative in assisted living and hospice facilities. It highlighted the reality of the relationship between animals and people, the promise of care and the reality of the importance in providing it.

Wildlife conservation was further emphasised in the conference presentations. Clare Travers describes the experiences of the National Kiwi Trust in *The artificial incubation of wild laid kiwi eggs—a conservation tool*, the

Trust having since successfully hatched Whiturau, its 700th kiwi. *Researching wildlife in New Zealand: conservation opportunities are both constraints and opportunities* by Mark Hauber describes, among other things, the use of audio calls during artificial rearing to alarm birds to the presence of humans. Penny Fisher addresses the *Animal welfare issues in vertebrate pest management and research in New Zealand* acknowledging the difficulties of inflicting harm in some species in order to protect others. These three contributions highlight the dilemmas of dealing with wildlife, a class of animals somewhat regarded as beyond our duty of care.

Fish welfare was the subject of the last session of the conference, and of these Proceedings. Carolyn Ashton, *Working towards the development of best practices in fish and fisheries research—The troubles with fish and fish biologists!*, Colin Johnston, *The fish: What potential for awareness?*, and Don Stevens’ *“Pain and analgesia in fish: What we know, what we don’t know, and what we need to know before using analgesics in fish* continue a theme begun at an earlier ANZCCART conference (Baldwin 2002). These contributions highlight the areas AECs struggle with and the issue of pain and its alleviation in these animals upon which we depend so much for our food and recreation as well as for their use in science and teaching. Baldwin’s earlier answer to the question What is good for fish?—“just leave us alone mate, and don’t bugger up our environment!”—highlights the issue of our relationship with animals. We are indebted to them and in turn obliged to be responsible in our interactions with them.

Drawing on the promises and the realities, the hopes and fears best allows us to negotiate our way through the ever-changing moral maze that characterises issues such as the use of animals in research, testing and teaching. As there are no simple solutions, nor could there be, we must continue to critique ourselves, for it is the interaction between science and ethics which ultimately determines the social ethic guiding the relationship between humans and animals. These Proceedings highlight some of the technical achievements in science as well as the values and decisions used in working through them. This blending of “objective” and “subjective” is ultimately entrusted to AECs who legitimise the use of animals in research, testing and teaching. The fact that the majority of New Zealanders are neither interested nor concerned with this use of animals (Williams et al. 2007) in part reflects the enormous contribution

the individuals on those committees make on all our behalf in grappling with the challenges and dilemmas involved, the promises and the fears, the blue skies and the deep waters.

References

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Mark Fisher
Chair, ANZCCART (NZ)

Welcome

Ladies and Gentlemen, AEC members, friends from Australia, Canada, the United Kingdom, the United States and Singapore ...

It is an honour to be asked to open this ANZCCART conference. I welcome you all to what promises to be an exciting programme over the couple of days.

This conference in Auckland has special significance for me. Eleven years ago I was introduced into the world of animal welfare at the ANZCCART conference of 1997 held at Auckland University. At David Bayvel's invitation I gave a presentation on "Societal consensus: how is it reached and changed?"

At the end of the conference I encountered another experience new to me. In company with the other participants I was ushered out the back door of the lecture theatre and the building while those opposed to the use of animals in research made their presence felt in the street outside the front door.

As a political scientist by discipline, the question of how a democratic, pluralist society copes with such conflicts of values has continued to fascinate me. Governance on the national and international stages challenges us with questions of immense ethical conflict.

At the less exalted, but no less important, level of the use of animals in research, testing and teaching (RTT), as chair of first ANZCCART and now the National Animal Ethics Advisory Committee (NAEAC), I have continued to grapple with this issue.

It is a truism to say that societal attitudes evolve. Over the past decade we have observed the events in the United Kingdom that led to the passage of the Serious Organised Crime and Police Act 2005; and the granting of injunction orders by the courts against protest actions. At the same time such august bodies

as the Australian Law Reform Commission have identified "animal welfare and rights" as one of three "over the horizon" issues that would occupy societies in the coming decades. As many of you will be aware, the Commission has devoted a complete issue of its journal to the topic.

Similarly in New Zealand we should note the emergence in educational institutions, such as the Centre for Human-Animal Studies at the University of Canterbury, of an interdisciplinary focus on animal welfare issues. And a number of universities are offering courses in animal law.

There is, as you all know, a range of positions taken by those who are opposed to the use of animals in RTT. One of the important judgements to be made from time to time is whether there is value in opening and maintaining a dialogue with some groups and individuals. ANZCCART has taken this route in inviting critics to conferences in the past.

Those who take issue with the use of animals in RTT express their opposition in different ways. Misinformation and some forms of protest do not contribute to good public policy. In a phrase attributed, I think, to Hillary Clinton, I find that most encounters with the media are devoted to "neutralising negativity".

Informed debate, on the other hand, can assist the promotion of high standards of animal welfare and the continued efforts to replace, reduce and refine the use of animals in RTT.

In NAEAC, and in collaboration with ANZCCART and other interested organisations, we have given high priority to considering strategies that will enable the case for animal use in RTT to be given a fair hearing, in the face of concerted protest campaigns. This is not to be portrayed as a "war" against anything —

a fair-minded balance is what all parties should be seeking.

But there are times when I detect a measure of criticism in some quarters of the role being played by NAEAC — a wish for us to be, in that rather over-worked word, more “proactive”.

I take this opportunity to say that I see the role of NAEAC as principally to assure the Minister of Agriculture and the New Zealand public of the integrity of the regulatory process enshrined in Part 6 of the Animal Welfare Act. That role is played out, of course, in the context of the science that is being undertaken, and NAEAC in its Annual Report and dealings with the media does not resile from laying out the gains to society that are the outcomes from that research.

The primary responsibility for making the case for the value of animal use rests, however, with the research community — individually and collectively — with the Royal Society, and ANZCCART (and I note the strong support recently reaffirmed by the Royal Society in London—see <http://royalsociety.org/landing.asp?id=1222>). It lies with the Ministry of Research, Science and Technology (MoRST), the universities and the Crown Research Institutes. And with those who benefit from the research and testing — the health service, the pharmaceutical companies, the veterinary profession, and the farmers.

There are so many “good news” stories to be told — and we will hear some at this conference. The assignment is to get them into the public domain.

I know very well the understandable reluctance of researchers or their host institutions to draw attention to the work that they are doing. I have talked with people whose families have been exposed to quite unacceptable action by protest groups. But unless the positive side of the equation is exposed the high ground is captured by those whose position, however sincerely held, is at best partial and at worst deliberately misleading.

As steps in this direction, I would personally like to see the research community revisit the topic of lay summaries proposed at the ANZCCART “Lifting the Veil” conference held in Christchurch in 2003. As an example of the kind of publicity that gains ground for the use of animals in RTT, I would instance the attention devoted to the work of recent recipients of the NAEAC Three Rs Award. The publication of Codes of Ethical Conduct would also be a step, in

the right direction. NAEAC supports the Ministry of Agriculture and Forestry (MAF) in offering code holders the opportunity to publish their codes on the MAF website.

Like all other organisations in this day and age, NAEAC carries out strategic planning. We devoted a day to this in November last year. Two themes came through strongly. The first was the need for not only NAEAC and the Ministry — but all in the RTT community — to keep abreast of the *developments in science and technology* that will pose new challenges to that system in the years ahead. Transgenics are an obvious area; and I look forward to tomorrow’s opening session.

NAEAC has been active in reviewing scientific priorities for the promotion of the Three Rs (Reduction, Refinement, Replacement) and in reminding funding bodies of the importance of this area of science. While the networks among institutions are strong we believe there is a role for NAEAC to play in acting as a broker for the mutual exchange of ideas and information — and perceived problems in the application of the Three Rs.

The second strategic theme for NAEAC looking ahead is the *international dimension* to our work. Indeed the *several* dimensions. There are the frontiers of the science itself; the tightening welfare standards evolving in other jurisdictions; and the regulatory restrictions applied to our exports. Committees in Wellington seek to ensure that to the extent possible there are “no surprises” in their areas of responsibility. We rely on occasions such as this ANZCCART conference and its international counterparts, the journals, and the international networking of the scientific community to keep us ahead of the game. We encourage you to raise emerging issues with us, either directly or through your Animal Ethics Committee (AEC).

I also want to say that the concept of international accreditation of laboratories has a particular attraction; and, in that context, we welcome among us from Hawaii, Dr Kathryn Bayne of the Association for the Assessment and Accreditation of Laboratory Animal Care International (AAALAC International).

NAEAC commends ANZCCART and the organisers of this conference in their focus on AECs. Whenever I am called upon to defend the integrity of the New Zealand regulatory system I am very conscious that I am speaking for the 35 AECs who are the “sharp end”

of that process. As I meet AEC members around the country, I am so impressed by the thoroughness with which committees approach their work, their sense of responsibility and the commitment to a culture of care and the Three Rs.

NAEAC is exploring ways to develop the relationship between members and AECs and I look forward to seeing you (and your colleagues who are not here) at the AEC workshop later in the year.

In particular, I want to underline the importance of the contribution made by external members. Their participation is a crucial element in the integrity of our regulatory framework. We all owe them a special debt of gratitude; this is true public service. Incidentally, I have been surprised to learn that some members serve

without monetary compensation. This is something to which the AECs concerned might wish to give consideration.

Finally, I thank the New Zealand committee of ANZCCART and Gill Sutherland, Executive officer, ANZCCART New Zealand, for the work that has gone into the organisation of this conference.

We have a rich menu before us. I am sure that we will all leave with an enhanced knowledge and an elevated interest in the topics before us.

John R, Martin,
Chair National Animal Ethics Advisory Committee
(NAEAC)
New Zealand