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NEWS

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Note from the Editor

ANZCCART NEWS provides a forum for one of ANZCCART's most important roles—the fostering of discussion and debate on issues related to the use of animals in research and teaching. Published articles cover a spectrum of opinion. ANZCCART wishes to make it abundantly clear that the views expressed by contributors are not necessarily those held by ANZCCART.

The use of animals for scientific purposes - the Queensland perspective

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People in modern communities expect that animals, whether they are pets, laboratory animals, pests or livestock, are afforded high standards of welfare and are treated humanely. Such treatment must be open to scrutiny, both in Australia and from overseas.

A positive welfare and ethics reputation is a component of ensuring market access for Queensland's livestock industries and biotechnology sector. This reputation also contributes to the image of Queensland being an attractive place in which to invest, visit, live or source animal products. To achieve high standards and promote best practice in animal welfare and ethics, it is essential to have up-to-date and effective legislation.

In Queensland, the Minister for Primary Industries and Fisheries (Honourable Henry Palaszczuk, MP) has portfolio responsibility for animal welfare and the Department of Primary Industries and Fisheries (DPI&F) is the lead agency responsible for animal welfare. The Minister and the DPI&F recognised the need for up-to-date animal welfare legislation to replace the original Animal Protection Act which was proclaimed in 1925. New legislation was developed to reflect changing community attitudes and practices towards animals and to ensure best practice in animal welfare. The *Animal Care and Protection Act* 2001 (the Act) was passed by Parliament and proclaimed in March 2002.

Prior to 2002, a separate regulation required that the use of animals in science and teaching adhered to the provisions of the Australian Code of Practice for the Care and Use of Animals for Scientific Purposes (The Code). However, there was no system of registering or licensing users of animals and, consequently, some users were unaware of the requirements of the Code.

It was recognised that protecting animals used in science and teaching was of paramount importance and, to encourage a high level of compliance, it was decided to incorporate the Code within the body of the Act. The task of administering the Act was entrusted to the Animal Welfare Unit within DPI&F Biosecurity. The Animal Welfare

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Unit develops animal welfare and ethics policies and standards, provides community education and regulates scientific animal use in Queensland.

There are many ways that high animal welfare standards are being, and will continue to be, achieved in Queensland, including:

- incorporating duty of care provisions into the Act;
- developing a monitoring program for the use of animals for scientific purposes;
- delivering education programs in schools;
- promoting Codes of Practice for farming and other industries using animals;
- establishing an Animal Welfare Advisory Committee with membership from industry, government and animal welfare groups, to advise the Minister and Parliament on animal welfare policy and standards;
- entering into a unique partnership with the RSPCA to provide inspectors to assist the DPI&F in enforcing the Act; and
- delivering an innovative adult learning training program geared to appointing inspectors under the Act. The program is a blend of face-to-face workshops, an online module and a self-paced study guide. Inspectors from DPI&F and RSPCA, ambulance drivers and veterinarians have been involved. An independent study program consisting of 6 modules is now offered to new inspectors who are undertaking animal welfare regulatory work.

Queensland safeguards the welfare of animals through the Act and through the infrastructure and procedures within DPI&F. The Act covers all non-human vertebrates (including fish) and all animal uses and situations, including animals used for scientific purposes. One of the underpinning principles of the Act is about achieving a balance between animal welfare and people's livelihoods and allowing for change with advances in scientific knowledge and new community expectations. For the use of animals for scientific purposes, the Act requires compulsory compliance with the Code. All persons or corporations using animals must register with DPI&F; nominate the Animal Ethics Committee (AEC) that will assess their animal use activities; and provide an annual animal use statistics report to DPI&F.

One of the challenges in administering the new act is keeping abreast of the use of animals in emerging biotechnologies. There have been major advances both in technology and in our knowledge and understanding of animal biology and behaviour. The philosophy in the Act is that it is acceptable to use animals for scientific purposes in order to advance our scientific knowledge, provided that this use can be justified and the animals are treated as humanely as possible. An AEC decides whether the use can be justified. Persons who use animals for scientific purposes in Queensland need to refer to and understand their obligations under the Act. In order to ensure that the use of animals for scientific purposes is accountable, open and responsible, a targeted extension program was instituted to make people aware of their responsibilities and enable them to comply with the requirements of the Act and the Code. This involved the development of:

- a DPI&F animal welfare and ethics web-site (launched in August 2002), providing information on the requirements of the Act and the Code for animal users, members of the public and AEC members (www.dpi.qld.gov.au/animal welfare);
- appropriate extension material such as a brochure entitled “Animals used for scientific purposes”, advising animal users of their registration requirements and the process for ethics approval;
- practical guidelines on how overseas and interstate organisations could meet their responsibilities;
- an extensive campaign to alert potentially affected persons to the requirements of the Act including direct mail outs to Queensland school bodies, local government authorities, pharmaceutical manufacturers, environmental consultants, manufacturers of veterinary products, pathologists, veterinary laboratories, veterinarians and biotechnology groups;
- public notices and articles in selected print media;
- radio interviews; and
- an innovative training program for AEC members, including a video of ‘Murphy’s Institute AEC’, in action.

Ethics in schools and educational institutions

DPI&F has specifically worked closely with all school bodies in Queensland to ensure that the welfare of animals in schools is provided for at all times, and that any use of animals occurs in a transparent, accountable and responsible manner which would be supported by the broader community.

Methods to engage schools have included:

- providing a dedicated DPI&F veterinary officer to assist all school groups to deal with the transition towards compliance and to meet their legislative obligations; and
- establishment of a DPI&F/Education liaison group with representatives from the private and public sectors in Queensland – Education Queensland, the Catholic Education Commission, Association of Independent Schools of Queensland and the Queensland Studies Authority.

These initiatives resulted in significant progress within the school sector in working towards full compliance. The highlights have included:

- establishment of a Queensland Schools Animal Ethics Committee (QSAEC) in Education Queensland;

- specific training of QSAEC members conducted by DPI&F in relation to the procedures and processes of such a committee;
- consideration and approval by the QSAEC of standard operating procedures (e.g., rat and toad dissections, chicken imprinting) that schools can use to suit their specific needs; and
- the development of a set of guiding principles for schools for those activities involving the use of animals in schools that do not fall within the definition of scientific use (e.g., animal nurseries visiting schools).

DPI&F is also working closely with educational institutions such as TAFE colleges and agricultural colleges to develop standard operating procedures, form AECs, train members and comply with the Act and the Code. There is a willingness to share information and resources among educational bodies and this has greatly assisted the compliance process.

Animal ethics training

The 2002 ANZCCART conference was opened with a mock meeting of 'Murphy's Institute AEC', which highlighted issues to be discussed at the conference as well as ineffective ways of running a meeting. It provided a humorous and thought-provoking start to the proceedings. This event has now been video-taped and is used as a resource in the DPI&F training course for AEC members together with a brochure entitled "Are you interested in becoming a member of an Animal Ethics Committee?".

This program focuses on meeting the specific learning needs of new and existing AECs, including the 3 Rs, the role of the AEC category members, legal information for members, assessing an application and conducting a meeting.

Animal use reporting

In 2002 the DPI&F produced the first statewide report for scientific animal use in Queensland. This was the first year that all scientific animal users in Queensland were required to register with the DPI&F and gain ethics approval for their animal use.

Prior to the introduction of the Act, there was no mechanism available to collect statistics on animals used for research and teaching. This situation was out of step with national trends and led to criticism from some animal rights groups that there was secrecy and a lack of transparency in scientific animal use. Annual statistics are also needed to comply with a new national reporting system being developed by the national Animal Welfare Working Group (AWWG).

The report provides a snapshot of animal use in Queensland and will help to promote accountability and openness.

Annual animal use reports will enable the community, animal welfare groups and governments to follow trends in scientific animal use and ensure that all use of animals is justified and that the welfare of the animals is considered.

Monitoring

The Act also requires that DPI&F develop a monitoring (review) program to ensure compliance by scientific animal users with compulsory regulatory requirements of the Act and the Code; minimise animal suffering; and promote standards of animal care stipulated under industry codes of practice. This review program aims to satisfy community expectations that the care and use of animals for scientific purposes are undertaken in an ethical and humane manner.

The monitoring program is being modelled on similar programs operating in New South Wales and Victoria and will use specially trained Authorised Officers to carry out audits of registrants and their AECs. The program will follow the guidelines contained in the draft 7th edition of the Code and will encourage self-regulation and an educative approach to compliance.

Challenges in implementing the scientific purposes section of the new legislation

It is now some two years since the Act was introduced and at the time of writing 184 persons or corporations have registered with DPI&F as users of animals for scientific purposes in Queensland. This number includes some 344 independent schools (either as individual legal entities or as part of a governing body).

There were a number of challenges in implementing this part of the new legislation:

- Locating all the users: There were some difficulties in finding all users of animals and alerting them to their obligations. The first hurdle was compiling a list of those persons who should be contacted in the first place and who might be undertaking animal activity in Queensland. This was resource-intensive.
- Defining a scientific purpose: Although the Code covers a wide range of animal use, there was a perception among some users that it applied to 'animal experimentation' only. Some users considered that their activities were not within a scientific discipline, for example, testing animal feed supplements or animal care products. Another common misconception was that scientific use activities carried out in commercial situations, such as in private veterinary practices or commercial farms, were exempt from registration and ethics approval.
- Frequently asked questions: There was a need to anticipate the questions that would be raised (such as "Do I need to register?" and "Have these turned into policy?"
- Community wildlife groups: There was, and still

remains, some concern among groups carrying out community wildlife surveys and the like (fauna, frog and bird groups) that registration was too expensive and that ethics approval would stifle their activities.

- Commercial in confidence activities: With the increase in multi-national companies sub-contracting fee for service research to public and private organisations, commercial in confidence issues arise and some companies are concerned about the risk of leaks of information to potential competitors.
- Cost of registration: Despite the fact that the maximum registration fee equates to $333 per year, some users objected to the fee and did not consider a registration system necessary. In response to concern from schools, the registration fee for schools was reduced to the equivalent of $87 per year for individual legal entities or when part of a governing body.

These challenges have been overcome by working with the stakeholders and, overall, we have achieved a high level of compliance with the new Act. The main challenge now facing DPI&F and animal users is to implement an effective monitoring system and encourage continuous improvement in standards of animal welfare and ethics in Queensland.

NEWS from ANZCCART

Professor Roger Holmes has stepped down as nominee of the Australian Vice-Chancellors' Committee, on the ANZCCART Board. The new nominee is Professor Roger Dean, Vice-Chancellor, University of Canberra. I feel certain that I speak for everyone associated with ANZCCART in thanking Professor Holmes for his long, dedicated and effective service to ANZCCART. On behalf of the ANZCCART Council, I extend a very warm welcome to Professor Dean.

A major item occupying our time has been the Annual Conference "Animal Ethics: New Frontiers, New Opportunities" to be held in Sydney from 26 to 28 September 2004. Planning for the event is progressing well, thanks to the conference planning team - Mary Bate, Kate Blaszak, Malcolm France, Rory Hope, Gill Sutherland, Liz Romer, Margaret Rose and Selina Watson. Full details about the conference are available on the ANZCCART website www.adelaide.edu.au/ANZCCART. You could greatly assist us by drawing the attention of your colleagues to the conference. There is a flyer on the website that could be forwarded to them or posted on notice boards.

The Australasian Society for Immunology (ASI) (President: Professor Chris Parish) has recently become a member of ANZCCART. This is very good news indeed and I welcome the ASI to our organisation. It is crucial that we attract additional professional societies to our ranks.

In consultation with colleagues in Western Australia, it was decided to postpone the ANZCCART Symposium we had tentatively planned for 24 June, until the new edition of the "Australian Code of Practice for the Care and Use of Animals for Scientific Purposes" is published by NHMRC—hopefully later this year.

Our increasing reliance on electronic communication is not without its problems. Much to our consternation, a recent email about the annual conference resulted in many "undeliverable" bounce-backs. It appears because we used an email list containing some 1,000 addresses, IT systems at some institutions identified the messages as SPAM, and refused to accept them!

The first ANZCCART Fact Sheet for several years, entitled "The Role of Veterinarians in the Care and Use of Animals in Research and Teaching", has been published and is now available for downloading from our website. Simon Bain, Susan Maastricht, Mary Bate and Denise Noonan wrote it. Suggestions for topics and authors of future Fact Sheets would be helpful.

We are in the process of cataloguing all the journals and books maintained in the ANZCCART library. The listing will be placed on our website and we hope to develop a loan system.

After seeking advice from ANZCCART's Editorial and Advisory Committee, it is planned to publish a set of "Selected Papers from ANZCCART NEWS". The papers will be taken from the past 5 years of the newsletter.

Rory Hope,

Director

Animal replacement and pain minimisation

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Just over 100 years ago, an intense competition was raging in the United States over the type of electricity that would be used to supply the nation with lighting. The main contenders were the Edison Company, which based their ideas on those of the famous inventor Thomas Edison, and the Westinghouse Company, who adopted the concepts of the brilliant Croatian physicist Nikola Tesla. While the Edison Company advocated the use of direct current, which would require multiple electricity generators to be installed in each town, the Westinghouse Company proposed to apply Tesla's principle of alternating current, which would allow long distance transmission. Edison's cause was supported by one Harold Brown, who conducted a lecture tour that aimed to convince the nation that direct current should be chosen on the basis of its superior safety. Brown attempted to demonstrate this in front of his audiences by electrocuting animals on the stage. Those treated with alternating current died while those treated with direct current survived, albeit marginally. In the course of his tour he carried out these demonstrations on a horse, a calf and a number of dogs. Michael White has written eloquently of the background to this episode (White, 2001), which demonstrates not only the cruelty of an individual in pursuit of commercial gain, but also the low regard that the majority of people in Brown's audiences had for animal pain. The more religious might justify this behaviour with the argument "animals have no soul, therefore they can have no consciousness, therefore they can feel no pain". But for many, the lack of response to such cruelty possibly arose from a kind of ethical void; they had been brought up in a culture that simply did not recognise it.

In the last half of the 20th Century, public perception of animal pain increased and books appeared discussing cruelty to larger animals (Russell and Burch, 1959). However, even at this stage there was little interest in the question of pain in rats and mice used for medical research. For instance, a newspaper article in the mid 1970s, announcing the advancement to worldwide clinical trials of amsacrine, a drug developed in Auckland by the late Professor Bruce Cain, almost proudly stated that the development had consumed thousands of mice. In the mid 1980s, the United States National Cancer Institute held a series of meetings on anticancer drug development, to which I was invited. The aim was to replace the primary screening system for the discovery of new anticancer drugs, which involved random testing of tens of thousands of chemicals in millions of mice, with a system based on the culture of human cancer cell lines. The main issues were first that screening for activity only against mouse tumours might miss potential drug targets specific to human cancers, and second that the use of new cell culture technology would provide an economic advantage. The ethical advantages of animal reduction were never formally considered.

It would be wrong to infer from the above that scientists were oblivious to the infliction of pain in animals.

Scientists represented a good cross-section of prevailing public attitudes and included many with a great regard for animal welfare. However, it took time for consciousness to develop on the issue of pain in experimental animals and a number of factors contributed. First, an increasing number of books and articles addressing this subject, many written by scientists, appeared in the literature, encouraging general discussion and debate. Groups involved in these discussions were the forerunners of animal ethical committees. Second, specific organisations such as SAFE (Save Animals from Exploitation), which in general acted from outside the scientific community, drew public attention to the issue of animal pain. While SAFE concentrated on high impact examples of animal experimentation (such as the testing of cosmetics on rabbit corneas), it was the job of the animal ethical committees to address the issue of animal replacement and pain minimisation in areas where most experiments were being carried out.

On top of the development of local and national animal ethical committees came Government legislation, which sought to enshrine ethical principles in law. While such laws in general had a positive effect, they suffered from the problem of trying to cover a huge diversity of situations including research, farming and manufacturing. Legislation had the effect of making things more difficult for researchers while not satisfying the needs of those protesting about animal experimentation in general. It also introduced an ethical paradox. For instance, a scientist who during the day could be severely reprimanded, fined or even banned from further work because of neglecting animal welfare in the laboratory, might go home and put out poisons or traps to prevent rodent infestation in his or her home.

Similarly, a scientist studying the habits of fish during the week under strict ethical guidelines could go to a lake or harbour in the weekend for recreational fishing with a completely different set of guidelines.

Even those people who eschew the killing of rats and mice in houses might still buy flour, bread and other grocery items protected from rodent contamination by pest control programmes that are in many ways inhumane.

Legislation provides a further ethical quandary for the scientist in that while some laws promote the reduction of animal use and animal suffering, other laws promote it. A good example is the use of animal testing to check the safety to humans of certain foods, such as shellfish, for human consumption. Shellfish by the nature of their feeding can accumulate potentially lethal toxins and need continual monitoring for the presence of such toxins. Traditionally, this has been done by administering extracts of sampled shellfish to mice, where the onset of a painful death is taken as a positive test. In fact we now have alternative analytical technology that replaces this procedure, thus minimising animal pain while protecting consumers. However, export to some countries still requires animal testing. Should we compromise our export industry by refusing these tests, or should we comply with the legislation and perform what is now really an unethical procedure? Another example is the development of new anticancer drugs. There is general acceptance that toxicological testing in rodents should be carried out before any drug is tested in cancer patients. But should these drugs be tested in dogs or other animals? There is good scientific evidence that testing in rodents is sufficient for the safe introduction of new anticancer drugs into clinical trial, but again, some countries insist on more extensive testing. The scientist is caught between the pressures on one hand to minimise animal pain and animal involvement, and on the other to satisfy regulatory requirements.

To sum up, an increasing awareness of animal rights, facilitated both by ethicists and by the scientists themselves, has led to the setting up of institutional and national animal ethics committees that play a key role in highlighting ethical issues to research and teaching institutions. The institution of such committees has been very effective in minimising animal pain. Furthermore, animal use in research and teaching is now effectively minimised by economics. The cost of meeting acceptable requirements of housing and care of animals, including monitoring of general health and checking for infection, is now combined in many cases with the high cost of importing experimental animals, which in the case of rodents often requires expensive transgenic and gene knockout strains. Costs have in fact increased to the point where research institutions may have to contribute to the infrastructure of experimental animal facilities in order for research and teaching programmes to remain viable.

On the other hand, increasing rigidity of regulations with regard to the toxicological and pharmacological testing of drugs before clinical investigation, particularly by the U.S. Food and Drug Administration, goes against this trend and results in an increase in both animal pain and animal numbers. It would be much better to regard legislation as a safety net for animal use rather than as a prescription. It follows that ethical committees should be aware of the inherent conflicts of different regulatory frameworks and should recognise the importance of working together with researchers and teachers, providing better awareness of animal ethics issues as well as facilitating the development of best practice protocols.

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The medical relevance of using particular species in disease models – lessons from fetal sheep studies down under

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"Clinicians and the public often consider it axiomatic that animal research has contributed to the treatment of human disease, yet little evidence is available to support this view. Few methods exist for evaluating the clinical relevance or importance of basic animal research, and so its clinical (as distinct from scientific) contribution remains uncertain" (Pound et al. 2004). This was the opening of a recent article in one of the world's most widely read medical journals, the *British Medical Journal*. The paper went on to highlight some meta-analyses of animal studies conducted to see if these studies had informed clinical research (Horn et al. 2001, Horn and Limburg 2001, Lucas et al. 2002, Mapstone et al. 2003, Roberts et al. 2002). The meta-analyses chosen demonstrated that the animal research had not benefited clinical research and, in at least one case, the animal studies ran simultaneously with the clinical studies (Horn et al. 2001). All the meta-analyses pointed out the poor quality of the animal research, with lack of proper randomisation, inadequate sample sizes and selection of outcomes of uncertain clinical relevance as the main problems.

Whilst the importance of clinical research being informed by animal research of high quality that addresses clinically relevant outcomes cannot be denied, it must be borne in mind that the above represents selected examples only, and also ignores other aspects of animal research that can inform clinical practice, in particular the astute, and at times entirely serendipitous, observation that may lead to clinically useful interventions. Neonatal medicine is one of the fastest developing fields of medicine, having only really become a specialty in the last 30 years or so. The history of neonatology has several examples of animal research leading to advances in clinical practice, with the sheep being a prominent experimental paradigm. Sheep have many advantages for those wishing to study the physiology of fetal development and pregnancy. Pregnancies tend to be limited to only one or two fetuses, in contrast to many other species, and some breeds will have a reliable proportion of singleton pregnancies. This is important when studying the physiology of pregnancy and fetal development, as the presence of a co-twin may significantly alter the processes being studied. Second, the sheep fetus is of a similar size to the human fetus, and many aspects of fetal maturation are similar. Finally, and crucially, the ewe and her fetus tolerate uterine surgery with apparently few effects. This allows the chronic catheterisation of the ewe and fetus, permitting longitudinal studies of mother and fetus to be performed in a relaxed, non-stressed, resting state. Australia and New Zealand have been, and continue to be, at the forefront of fetal research using the sheep. This is due in part to the concentration of expertise, but also to the availability of sheep, a factor which makes such research extremely expensive in North America.

Perhaps the best example of fetal sheep research of great medical relevance, and also one of the importance of astute observation, is that of Professor Sir Graham (Mont) Liggins in Auckland, New Zealand and the discovery of the effects of antenatal glucocorticoid administration on the developing lung. Babies born preterm have deficient pulmonary surfactant production, resulting in neonatal respiratory distress syndrome. Before modern neonatal medicine, this was frequently a lethal disease, and survivors were at risk of long-term respiratory compromise, or chronic lung disease. Professor Liggins was investigating the role of fetal glucocorticoids in the onset of parturition in the ewe. During his studies he demonstrated preterm labour following administration of the synthetic glucocorticoid, dexamethasone, to the ewe (Liggins 1969). However, Professor Liggins noted that many of these preterm lambs had at least partial aeration of their lungs and that their respiratory status was better than expected for lambs of their gestation. He went on to demonstrate that the architecture of their lungs was more mature, and rapidly performed a randomised placebo controlled trial of antenatal betamethasone (another synthetic glucocorticoid) in a large number of women at risk of preterm birth (Liggins and Howie 1972). This trial demonstrated a substantial reduction in neonatal respiratory distress syndrome and mortality, and has also been demonstrated to reduce the incidence of major intracerebral bleeds and a devastating neonatal gastrointestinal disease, necrotising enterocolitis.

Following this trial, the treatment was rapidly introduced into Australasian obstetric practice and it is now advocated internationally for women at risk of preterm birth with few exceptions, with the result that thousands of babies' lives are saved every year (National Institutes of Health 1994).

The same sequence of astute observations in animals, followed by a well-designed clinical trial, does not apply to the use of synthetic glucocorticoids postnatally in preterm babies to prevent or treat chronic lung

disease. The literature for this intervention is littered with small clinical trials often not addressing the important outcome. Animal studies did not precede the earliest of these trials, and subsequent animal studies addressed mechanisms rather than crucial outcomes. Use of this intervention vacillated based on little evidence, and a recent international multicentre Australian-run trial that would have provided crucial information had to be stopped prematurely because of poor recruitment (Doyle et al. 2003). Even now, thirty or more years after the first clinical study describing the use of postnatal steroids for the treatment of neonatal lung disease, the most appropriate treatment regimen and the balance of benefical versus adverse effects remains unknown (Halliday et al. 2003a, b, c).

Another good example of the medical relevance of an animal experiment utilising the sheep as a model of human disease is the development of hypothermia as a possible treatment for perinatal asphyxia at term and consequent brain damage. Perinatal asphyxia remains a major cause of brain damage and cerebral palsy in children, and there are no known treatments that can ameliorate the neuronal damage once asphyxia has occurred. Gluckman and colleagues developed a model of intrauterine asphyxia in the late-gestation fetal sheep. They demonstrated that selective cooling of the fetal head following an asphyxial insult resulted in a dramatic reduction in neuronal loss (Gunn et al. 1997, Gunn et al. 1998). Once again, this technology was translated fairly rapidly to the neonatal nursery, where preliminary safety studies demonstrated no significant adverse effects (Battin et al. 2001, Battin et al. 2003). A large, international, multicentre trial of selective head cooling in asphyxiated infants has recently been completed and found a significant reduction in cerebral palsy at age 2 in the moderately asphyxiated infants, although very severely asphyxiated infants did not appear to benefit. Publication of these results is expected later this year (Gluckman et al. 2004).

Neonatology, as with other branches of medicine, has plenty of examples in its history of the introduction of an intervention that seemed a very good idea at the time, but based on no evidence, having disastrous consequences. Perhaps the most salutary is the liberal, but uncontrolled, use of high percentages of oxygen in preterm babies with lung disease which resulted in many cases of blindness due to retinopathy of prematurity (James and Lanman 1976). The examples of antenatal glucocorticoids and hypothermia give a clear demonstration of the value of the pregnant sheep for investigating fetal and perinatal disease. It would have been very difficult to have proceeded as rapidly to randomised controlled clinical trials for these interventions without the convincing animal data. Antenatal glucocorticoids have completely altered the natural history of preterm lung disease. Selective head cooling has the potential to do the same for perinatal asphyxia.

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Moving towards a national legislative approach to animal welfare

Senator Andrew Bartlett
Leader of the Australian Democrats and the party's spokesperson on animal welfare issues

For more than twenty-five years, the Australian Democrats have been very clear about their commitment to animals and animal welfare.

The Democrats see animal rights and welfare as being integral to sound and responsible government and have raised many issues of concern in the Senate over the last quarter of a century. These include: the inhumane culling of brumbies; intensive and inhumane farming practices, such as battery hen cages and single sow stalls; the lack of protection for the world's great apes and Australia's cassowaries and other wildlife; the need to ban the elephant ivory trade; calls for tighter regulation and greater transparency with live animal exports and the commercial utilisation of wildlife; the need for research institutions to seek alternative methods to animal experimentation; successful passage of Democrats' motions calling on a national ban on duck hunting and cattle face branding and the importance of protecting our and the world's threatened species.

In recent months, the focus has been more on Australia's live export trade, an issue that has long called for more focus on humane slaughtering practices and the expansion of Australia's chilled, frozen and refrigerated carcass trade.

Animal welfare and animal-related issues have met with varying degrees of success and failure within the Australian parliament, but mostly it has been disappointing. Most politicians do not give much priority to animal welfare issues, let alone worry about better standards and enforcement.

This lack of political interest and engagement with animal welfare issues at the national level was what led the Democrats to introduce the *National Animal Welfare Bill (2003)* into the Senate in August of last year.

The purpose of the Bill is to identify animal welfare as a national issue of concern, and to institute comprehensive and proactive legislation that promotes and ensures humane and responsible care, protection and use of domestic animals, livestock, wildlife and animals kept for scientific purposes, and sets the standards required to achieve this end. From the Democrats' perspective and that of many in the community this initiative is long overdue.

The Bill provides the means by which the care, protection and use of animals can be coordinated, monitored and reviewed nationally, with the establishment of a National Animal Welfare Authority. This Authority would have the power to do what is necessary in order to achieve a reasonable balance between the welfare needs of animals and the interests of people who use animals for a livelihood; reflect community attitudes and expectations as to how animals should be treated; and acknowledge advances in the scientific knowledge of animal biology, psychology and behaviour in respect to their needs and care.

The Bill also seeks to regulate the use of animals for private, commercial, institutional, educational and government research and experimentation to ensure the use of animals for such purposes are accountable, open, ethical, humane and responsible. In essence, it is an extension of the work of the Senate Select Committee on Animal Welfare. In some ways, the Bill expands on the recommendations of that Committee.

Although the Australian Democrats consider the *National Animal Welfare Bill (2003)* to be a vital and relevant piece of legislation, as do many in the community, not surprisingly, not all industry groups and political parties agree with our view. And because it is a Private Member's Bill, rather than a piece of government legislation, it is difficult to advance it through all the stages necessary for it to become law.

The Democrats intend to refer the Bill to a Senate Committee for investigation and reporting. This would enable those genuinely concerned about animals to voice their views direct to the appropriate Senate Committee. A Senate Committee's deliberation on animal welfare matters would also provide an opportunity for raising community awareness and debate on the topic; more consideration could also be given to improving the overall standard and enforcement of animal welfare across the country.

Unfortunately, Australia's political climate is not really conducive to animals and animal welfare issues and it hasn't been for a very long time, which makes legislative changes all the more difficult to achieve. Few politicians consider animal welfare to be a vote-changing issue in its own right, and I would agree. Not unreasonably, voters' primary concerns relate to matters such as having decent healthcare, education and employment opportunities for themselves and their family.

However, just because animal welfare issues might not be enough on their own to shift someone's vote does not mean that people are not concerned about how animals

are treated. In my time in the Senate, I have received much stronger and widespread expressions of concern from the public about issues involving entrenched animal cruelty than all but a handful of other more 'mainstream' issues. Consistently these issues draw strong responses from the public, both in number and in intensity. The level of recent concern on live exports gives a clear indication of the community outrage. To date, more than 100 000 Australians have signed petitions calling for an end to the live export trade.

Despite this, where animals and animal welfare are concerned, major legislative change is difficult. No amount of pressure or zeal will achieve the outcomes sought if neither the Government nor the Opposition will support the Democrats in pushing the community's agenda for more action in this area.

A broader Senate Committee inquiry into the National Animal Welfare Bill would facilitate an increase in community awareness and political pressure for substantive action.

The Senate Select Committee in Animal Welfare, established on the motion of former Democrat Leader, Senator Don Chipp, was very influential in the 1980's. Over the course of that Committee's lifetime, it pursued significant and varied animal welfare issues and concerns under its terms of reference, producing 10 reports during its 8-year lifespan. The more influential of these reports were: Export of Live Sheep from Australia (1985); Dolphins and Whales in Captivity (1985); Animal Experimentation (1989); and Intensive Livestock Production (1990).

However, since that Committee wound up, the lack of interest in animal welfare at a federal level has seen Australia continue with its hodge-podge of state and territory animal welfare legislation. Changes, progress and review of state and territorial animal welfare legislation have been slow…almost glacial, in fact. It took Queensland 15 years to finalise its amendments to its 75-year-old legislation, although it now has one of the more progressive animal welfare Acts in Australia.

Irrespective of the improvements, animal welfare in Australia remains a dog's breakfast of policies, enforcement and penalties, differing from state to state. Moving towards a national approach to animal welfare would put an end to much of this.

The vagaries of each state's and territory's animal welfare legislation, and its application, also make it virtually impossible for there to be any rapid advancements in animal welfare. Diverse and incongruent state and territorial legislation minimise the opportunity for creating binding codes and practices, reduce knowledge-sharing, render comprehensive monitoring impossible, ensure "uniform standards" remain anything but, and put comparative state-by-state reviews out of the question. Any attempts towards uniformity tend towards the lowest common denominator, and efforts for improvement in one state tend to be curtailed by the problems inherent in getting 'ahead of the pack' and potentially putting particular industries in that state at a disadvantage.

Another drawback is in the area of statistical gathering. The lack of a national database on animal experimentation makes proper oversight of this area very difficult. It also impedes the proper development of a national tissue bank, which would allow for a greater reduction in the number of animals required for medical and scientific research.

Much is jeopardised for the sake of maintaining state and territorial political and administrative integrity – making it well nigh impossible to introduce national anti-animal cruelty legislation. Despite most states and territories having revised or enacted their respective animal welfare legislation, it largely remains reactive, with the emphasis being on wanting to punish acts of cruelty to animals after the event rather than striving to prevent them from the outset.

Naturally, it's not always possible to take an interventionist view or be pre-emptive in these matters, but local, state and territorial governments need to acknowledge that cruelty to animals is on the increase, and recognise that there is a real link between animal cruelty and human abuse.

Abuse and neglect of living creatures does not happen in a vacuum. A national registration of animal welfare offenders, like that endorsed by the Australasian Police Ministers' Council for Australia's child sex offenders, would provide greater opportunities for sharing vital information across all law enforcement agencies. It would directly aid in reducing or preventing similar or worse offences against animals and humans alike – as would a national approach to animal welfare.

There are still many people who see the issue of animal cruelty and human abuse as being mutually exclusive. This is a greater problem when it is combined with a tendency to ignore or downplay the abuse inflicted upon animals.

Adolescent cruelty to animals is considered so serious an offence in the United States that the American Psychiatric Association recognises it as a symptom of conduct disorder. And it's not hard to understand why, particularly considering that in the USA virtually every serial killer, and most habitual offenders, began by torturing and killing animals.

If we knew then what we know now, acts such as this may have been prevented or minimised. Certainly there is more and more scientific and anecdotal data becoming available, but unfortunately most of what is available relates to USA experiences.

Australia essentially is lagging behind much of the western world on animal welfare issues and some related matters, such as the correlation between animal cruelty and human abuse.

It is all the more complicated because individual state and territory animal welfare legislation has a large criminal component within it but, strangely, it is the only legislation that is not driven by its respective state or territory police forces. Instead, we see animal welfare legislation largely being enforced by the RSPCA Inspectorate, a non-government organisation, with some states and territories also granting special constable status to officers within a state Department of Primary Industries or equivalent authority.

It is only in recent years that state and territorial governments have started to recognise their responsibilities to animals, and more importantly that animal welfare legislation needs to be broader than just enforcement. One of the main problems for state and territorial legislation is the lack of resources being made available for the purposes of enforcement.

Lack of resources sees the RSPCA Inspectorate, which currently consists of approximately 75 full-time and 75 honorary or part-time inspectors Australia-wide, overwhelmed by the demands on its services. This number is absolutely inadequate considering Australia's extraordinarily high number of domestic animals and production livestock, and knowing that Australia is a vast and challenging continent at the best of times, let alone in periods of drought or floods or a combination of both.

Unremittent drought together with the associated economic downturn has put enormous and unbearable pressures on many rural and regional communities in recent times. This has, in turn, had dire consequences for some domestic animals and production livestock. It is obviously difficult to provide food, shelter, comfort and protection in financially and socially impoverished communities.

The application, enforcement and prosecution of animal welfare legislation are vitally important in the protection and care of all animals, whether they are domestic pets or livestock destined for the dinner table. But the application, enforcement and prosecution, if and when these incidents are reported, do vary significantly. Variation in the application of animal welfare legislation comes down to self-regulating bodies like Livecorp, individual RSPCA inspectors, Department of Primary Industry (DPI) officers and special constables pursuing enforcement in accordance with their own individual state and territorial legislation.

Clearly there is a need for proactive intervention and it is the belief of the Australian Democrats that this can only be provided at a national level.

Commonwealth legislation would ensure more consistency, effectiveness and efficiency. States and territories would be able to engage in mutually beneficial transactions that would have an immediate impact on Australia's international trade and treaties involving domestic animals, livestock and wildlife. Wherever there are inconsistencies, there are unnecessary complications, confusion, duplications and inefficiencies, none of which is conducive to improved productivity and economic growth, let alone optimum animal welfare outcomes.

The Australian Democrats' *National Animal Welfare Bill (2003)* would provide all those involved with animals with a substantial foundation on which to build a workable and flexible approach to animal welfare nationally. On a state and territorial level, the Bill would operate concurrently with state and territorial laws, but where the state or territory laws were deemed more stringent by the Commonwealth Minister, those provisions would prevail over those of the Bill.

In theory, these measures would make it easier for the Bill to leap the procedural and bureaucratic barrier, particularly if support for the establishment of the National Animal Welfare Authority – a regulatory authority with overarching responsibility for the legislation, its application and implication – is forthcoming.

The proposed Authority would comprise 13 members – all of whom are to be appointed by the Minister. Three members would represent the Commonwealth; 2 members from commercial producers or users of animals and animal products (one intensive and one extensive); 2 members from animal welfare NGOs; 2 members from other community groups; and 4 other members, of which 2 will be scientists; and 1 an animal ethicist.

The proposed functions and powers of the National Animal Welfare Authority would be:

(a) the coordination, monitoring and review of Commonwealth responsibilities for animal welfare;
(b) functions and powers conferred on it by or under the Act;
(c) functions and powers conferred on it by or under other laws of the Commonwealth;
(d) functions and powers that are, with the consent of the Ministerial Council, conferred on the Authority by writing signed by the Minister.

The most invaluable undertaking of the Authority would be the appointment of national animal inspectors, many of whom would be drawn from the existing RSPCA inspectorate and the officers within the various Departments of Agriculture and Primary Industries, and organisations external to these entities. The appointment of animal inspectors, with functions and powers that go across state and territorial borders, ensures the Bill is

not a toothless tiger. Each of the inspectors would have the means by which he/she could circumvent out-of-date and irrelevant legal obstacles. The focus of the Bill, the Authority and the inspectors is animals – their welfare, protection and rights.

Animals used for scientific, educational and research purposes, for example, would benefit greatly from a proactive national approach to animal welfare. Community concerns for animals used in this area are on the increase with the expansion of biotechnology research, and it is incumbent upon the Commonwealth to address these concerns. But aside from the National Health and Medical Research Council's (NHMRC) *Animal Welfare Code of Conduct*, which is only applicable to NHMRC funded projects, there is currently no means by which animals subjected to such use can be readily managed, monitored and reviewed on a national scale.

The Australian Democrats' *National Animal Welfare Bill (2003)* emphasises the monitoring of all animals used for scientific, educational and research purposes, irrespective of how the research is funded. Much would be achieved by extending the application of the NHMRC's *Animal Welfare Code of Conduct* – including meeting many of the community's concerns about the issues of transparency and accountability in research and experimentation.

Currently, much of the research involving animals used for scientific and research purposes, falls under the 'commercial in confidence' category, which denies the community the opportunity to properly scrutinise the processes and practices employed. The Australian Democrats' *National Animal Welfare Bill 2003* seeks to address this and other issues and provides an appropriate legislative framework for investigating and dealing with this and other animal welfare issues at a national level.

The Bill gives consideration to breach of duty of care, cruelty offences, prohibited conduct (including unreasonable abandonment, prohibited release, baits or harmful substances, and debarking operations), prohibited events (such as cockfights and dogfights), regulated conduct (such as obligation to exercise closely confined dogs, and animals used to feed another animal), live exports (including a limit on live exports, duties of the veterinary surgeons and liability), import of animal products, labelling of animal products, animals used for experimental purposes (including establishment of a data bank, licences, acquisition of animals for research and pain management), funding for animal research, and the administrative provisions relating to the Authority administration and staff.

The legislation seeks to establish a databank of all experiments using animals carried out in both Australia and overseas, and another dedicated to alternatives to animal research and experimentation.

This legislation is about recognising the importance, contribution and sacrifice of animals; we, as humans, rely on animals and their products for survival and profit. We are beholden to them, just as they are to us, but unlike animals, humans are in a position of power and influence.

It is not suggested that the proposed legislation is the only way forward on this issue. One of the purposes of referring it to a Senate Committee would be to examine other, potentially more effective, ways of meeting community expectations and market obligations in relation to animal welfare issues. However, what is beyond doubt is that animal welfare needs to become a greater priority at national level and some new mechanisms need to be tried to make that happen.

Letters to the Editor

Dear Sir

I write in response to the letter from Graham Nerlich, Emeritus Professor of Philosophy at The University of Adelaide. In this letter Professor Nerlich proposes that 'the work of the ethics committee be made available in some fashion, to those with a proper interest'. The basis for this proposition is the argument that transparency is better than secrecy, in respect of institutional use of experimental animals. Furthermore, he argues, it is better to initiate than to be imposed upon.

Consider the following scenario: The well renowned School of Biomedical Sciences at the University of Norfolk Island adopts the Nerlich proposal following advice from the Department of Philosophy. Initially there was some reluctance by investigators to cooperate and a significant number of scientists had reservations about intellectual property. Contractual agreements with several European commercial industry partners were under threat if the details of the research were to be made public. However, despite these concerns, the School published a series of abstracts which detailed pain categories, ethical issues and experimental results in a lay-format as suggested by Professor Nerlich. The University elected to use their public website as the format for these documents.

Surprisingly little happened for a month. Then the Sydney Morning Herald science reporter, who happened to spend a holiday weekend on the Island, overheard a pub owner mention the whale study that his daughter was involved with, in the Biology Department. Whale-strandings are not great media stories; nevertheless the reporter accessed the website and found a wealth of information, in layperson's terms, on this and other research programmes. He quickly wrote an article for the Herald that described how the Biology Department had completed extensive underwater excavations of the southern beach, using the latest submersible bulldozers. Multiple underwater sonar detectors were strategically placed throughout the new marine park. The article erroneously suggested that the purpose of these submarine earthworks was to encourage migrating whales to visit and strand themselves on the coastline. Some additional creative fiction further embellished the story, but the paper's editor was unaware of this and ran the piece.

Soon afterwards Greenpeace heard of the story and went on the offensive. They joined forces with a Melbourne-based militant animal rights group which specialised in marine mammals. The Department was quickly under siege by angry demonstrators. Bulldozers on the beach were vandalized; sand found its way into fuel tanks. The Dean of the School went into damage control mode and was invited to debate Greenpeace on the nightly news channel. The Philosophy Department offered its assistance, expecting that reason and scientific fact would win the day. The School was inundated with requests for complete documentation of the whale study, under the Freedom of Information Act. These well orchestrated demands were not satisfied by the abstracted version on the website. Greenpeace requested a copy of every document and video film of the 3-year whale study. Even the nominal $2000 handling fee for document reproduction did not deter these demands. As a result of the protest action and encampment of professional agitators on the beach, the brief seasonal window of migrational whale behaviour was missed by the marine scientists. The three departmental secretaries were kept busy with information requests. Although many were clearly vexa-

tious, the activists had cleverly managed to write letters that could not legally be denied. The media hype on national television did not go well for the Dean and although she presented as a reasonable scientist, the adversarial interview did nothing for the reputation of the School or the University. After three months of angry confrontation and major disruptions to the teaching and research activities of the Department, the protestors left abruptly. Fearful of further activist attention, the Dean demanded that the website be shut down. She was supported by the entire academic community. You can still visit the rusting hulks of the disused and abandoned bulldozers on the beach.

How realistic is this account?

For those who have yet to experience the crusading vigour of an animal rights activist in full flight, it might read as far-fetched and ridiculous. But it illustrates some possible consequences of institutional transparency. The following aspects should be considered in my view:

Dissemination of information:

The intention to inform those with a 'proper interest' is commendable and I fully support the concept. However, there are real practical difficulties with the distribution of information to the public. Those with an anti-science agenda will also become informed, as is their right in a democracy. Although in the minority, animal activists can engage institutions in protracted demands for information that soak up resources and time. There is no way that I am aware of, to limit information to those with a 'proper interest'. Professor Nerlich has not defined this term, so I will assume that he refers to a reasonable inquiry that seeks information in order to further understand the science. A 'proper interest' would not be, in my view, one that aims to use the information to discredit or vilify the authors. Clearly, once the information is published, an institution has no control over how that information is used.

Potential targets:

The publication of information for the public offers target-practice for those individuals who have an alternative view of animal-based research. While a few scientists may be prepared to have their names made public in this way, I would suspect that many would rather remain anonymous. However, anonymous public information can often be tracked through reference to the scientific literature and thereby authorship may be determined, particularly when a scientist works in a specialised field. Such investigative work requires certain skills and access to computers. Probably the general public with a proper interest would not bother to go to such lengths. Of course the other aspect of target-practice is the matter of what I choose to call the AES; or 'Abstract Enticement Syndrome'. What better way to engage the services of the local animal rights activist than to publish a menu of research abstracts from which s/he may choose those of particular interest? Once enticed, s/he can then demand a complete set of documents, including the Animal Ethics Application, as provided by the Freedom of Information Act 1982 (in Australia) or the Official Information Act 1982 (in New Zealand).

Abstracts as substitutes for official requests:

The consequences of informing the public through scientific abstracts or their equivalent needs to be considered in the light of the 'Abstract Enticement Syndrome'. While the Nerlich abstract proposal is fundamentally a reasonable strategy, it is my understanding of the legal process, that such abstracts

will not satisfy; that is, supplied in-lieu of, requests under the Freedom of Information or Official Information Acts. Hence institutions would need to balance the merits of increased public accountability, through abstract publication, against the potential demands for specific details, as may be provided for under these information Acts. Like childbirth, one has little appreciation of compliance with official information requests until one has had personal experience. Perhaps not a totally appropriate analogy for this author with X & Y chromosomes.

Institutional resources to manage information requests:

The legislative compliance costs associated with the use of experimental animals has been problematic for many institutions in New Zealand and I would imagine that the same might apply in Australia. Frequently, the operation of Animal Ethics Committees has been managed without formal budgets by personnel who were assigned AEC responsibilities in addition to their regular job. I have yet to meet the chairperson of an AEC who relishes the chance to work the extra hours required to service the committee and manage the issues that result from its operation. Almost all agree that the AEC serves an important function, but few are adequately compensated.

At the Department of Biology, in the University of Norfolk Island, the three secretaries were inundated with official requests. They were obliged to consult the university lawyer for each one of them. Each scientist involved was consulted to ensure that his/her intellectual property was not compromised. This caused significant delays in providing information within the statutory response period and the legal expenses were a major shock for the Department's financial officer. The requests came at a particularly inopportune time for the Department, as final examinations were under way at the end of the academic year. The Head of the Department was supported by the entire staff in his demands for additional resources to cope. They were denied, because the replacement bulldozers blew the budget.

If public institutions or funding agencies such as NH&MRC, or HRC were to implement the Nerlich proposal, they should also ensure that appropriate resources are set aside for the management of the consequential demands that will undoubtedly unfold, in my view. It would be quite unreasonable to expect staff to manage official requests without additional support. It was finally determined at the University of Norfolk Island that the exercise in transparency would not be repeated. Information would be limited to reprints of research papers made available upon request. 'Let them do their own medline search', the Dean was overheard to say at the faculty board meeting.

In conclusion, I would agree with Professor Nerlich that his proposal has merit and it would serve to better inform the general public. And I applaud his call for reform. However, there are some serious potential difficulties for institutions and individuals that should be considered. As I have attempted to illustrate, reformation sometimes comes at a significant cost.

Yours sincerely

John Schofield
Director of Animal Welfare
University of Otago
Dunedin
New Zealand

Letters to the Editor

Dear Sir,

In response to Professor Nerlich's suggestion that a more liberal practice on the confidentiality of experimental work on animals be considered (ANZCCAET News Vol. 17 Number 1 2004) I would like to make the following observations.

It has been folk law among the animal research community in Australia, since at least the mid 1980s when the Senate Select Committee into Animal Experimentation was conducted, that increased public access to information regarding the use of animals in research will result in a greater acceptance of research practices. However, to date, not only has no evidence been produced on either side of the debate to demonstrate that indeed increased public scrutiny will result in greater acceptance, but increased public scrutiny has simply not occurred.

The animal welfare/ rights community appears to favour enhanced access to information, yet the animal research community appears to be strongly opposed. In the absence of any detailed study which demonstrates that there is in fact a link between the availability of information and a positive public perception of animal research, I would suggest that we can extrapolate from the welfare community's support, and the research community's opposition, that the research community as a whole is of the opinion that enhanced disclosure would be detrimental.

The most powerful point made in Professor Nerlich's letter is that if animal researchers do not adopt a policy of transparency they run the risk of having one imposed on them. I suspect that argument is the one most likely to encourage researchers to provide publicly accessible information. However, if a policy of transparency is adopted simply to ensure the research community dictates the terms of reference, one has to wonder whether it will be a policy which sincerely advances animal welfare, or rather simply another exercise in politicking.

Yours sincerely

Siobhan O'Sullivan
Government and International Relations
The University of Sydney

RSPCA Australia Scholarships for animal welfare research 2004 – 5

Each year since 1989, RSPCA Australia has offered the RSPCA Australia Alan White Scholarship to fulltime students for the funding of original research aimed at improving the welfare of animals in Australia. In 2004, the RSPCA has expanded its scholarship program and now offers two types of upgraded scholarships, one for research into general animal welfare issues, and another for specific projects aimed at improving the welfare of livestock in intensive production systems.

The RSPCA Australia scholarships are intended to encourage students to take an active interest in animal welfare issues, to support animal welfare research that might not otherwise attract funding, and to promote the objectives of the RSPCA within the research community.

RSPCA Australia Alan White Scholarship for Animal Welfare Research

The RSPCA Australia Alan White Scholarship for Animal Welfare Research was established in 1989 to advance the cause of animal welfare in Australia. The scholarship is named after Mr Alan White, a past President of RSPCA Australia and a past President of RSPCA Queensland. The Alan White Scholarship is available to full-time students in Australian tertiary institutions for the funding of original research aimed at improving the welfare of animals in Australia. The 2004 – 5 award will be for $7,000 and can be used towards any area of research that fits the general scholarship criteria.

RSPCA Australia Scholarship for Humane Animal Production Research

This scholarship category is available for individual research projects that are related to the development of humane alternative animal production systems. These awards are funded by the royalties accrued from RSPCA Australia accreditation of animal production systems. The 2004 – 5 scholarship award will be for $7,000 and is available to full-time students in Australian tertiary institutions. Applications can be made for research involving any livestock animal, but projects relating to alternative housing and husbandry systems for pigs and poultry are particularly encouraged.

Scholarship criteria

The following general criteria apply to applications for either type of award:

Applications should be for a discrete research project (which may or may not form part of a larger research program).

Applicants must demonstrate in their application that their proposed research project is supportive of the policies of RSPCA Australia and will be used to further animal welfare in Australia. All current policies can be viewed on the RSPCA Australia website at www.rspca.org.au (follow the 'policies' link). Applicants must be enrolled in full-time education in an accredited course at an Australian University or College in the year their application is considered. The Scholarships are not restricted to any particular academic discipline. However, applicants demonstrating a major commitment to and/or involvement with animal welfare issues are strongly favoured.

Conditions

Scholarship recipients are required to submit annual progress reports (for projects that take more than one year to complete) and a final report on the nominated research project to RSPCA Australia. These reports must be submitted in electronic format by the end of April each year, or within three weeks of completion of the project. RSPCA Australia retains all rights to reproduce and distribute these reports. Recipients are required to acknowledge their Scholarship in any publications arising from the funded research project.

Application information

Application forms for the RSPCA Australia Scholarships can be downloaded or can be mailed on request from the RSPCA Australia office. Applications for the 2004 – 5 Scholarships close on Friday 27 August 2004. Applicants will be notified of the results of the assessment process by mid October 2004.

Completed applications should be forwarded by mail to:

Dr Bidda Jones
Scientific Officer
RSPCA Australia
PO Box 265
Deakin West ACT 2600

If you require further information please contact

Animal Ethics: New Frontiers, New Opportunities September 26 – 28, Sydney, N.S.W.

The conduct of science is open to increasing public scrutiny. Tensions are arising between the use of new technologies or the implications of new knowledge and the ethical frameworks used in making decisions.

How may these ethical challenges be addressed? What procedures can be developed that inform public confidence without undermining scientific initiatives?

A focus of the program is to revisit these questions in light of recent scientific developments.

Session themes and topics will include:

- Scientific progress and social attitudes—are they compatible?
- New sciences / New philosophies.
- Animal welfare: changing community expectations.
- Animal welfare in practice: can we know what an animal is feeling?
- Responsibility and accountability: are bureaucratic demands undermining the responsibilities of scientists?

The conference will benefit:

- Scientists, veterinarians, animal care staff, students and teachers who work with animals in their profession.
- People responsible for making decisions about animal ethics and welfare, including government officials and members of Animal Ethics Committees.
- Philosophers and others with general interests in bioethics.

Further details and registration form available from www.adelaide.edu.au/ANZCCART

New books and films

New books available on the animal welfare implications of marking wildlife

Ngaio Beausoleil
Animal Welfare Science and Bioethics Centre
Massey University, Palmerston North, New Zealand

The Animal Welfare Science and Bioethics Centre (AWSBC) at Massey University has recently prepared two volumes relating to the scientific and animal welfare implications of marking wildlife, specifically amphibians, reptiles and marine mammals (cetaceans and pinnipeds). The New Zealand Department of Conservation (DOC) commissioned the Centre to review issues relating to wildlife marking after the public expressed concern over hot branding of seals in New Zealand. This venture demonstrates DOC's recognition of the ethical and practical responsibilities of wildlife scientists, and the organization's commitment to safeguarding the welfare of New Zealand's wild animals. Please note that although the titles refer to New Zealand wildlife, the information is derived from international literature, and is relevant to all scientists working with wild animals.

The first volume is a 55 - page booklet entitled ***Marking amphibians, reptiles and marine mammals: animal welfare, practicalities and public perceptions in New Zealand*** by D.J. Mellor, N.J. Beausoleil and K.J. Stafford. The booklet outlines the ethical and scientific responsibilities of researchers proposing to mark wild animals, the general considerations for wildlife marking and the importance of perceptions in maintaining public support for wildlife research. Different methods available for marking amphibians, reptiles and marine mammals are then presented. Each method is explained briefly, and the specific advantages, disadvantages and safeguards for its use are discussed. The acceptability of the method in practical, biological and welfare terms is presented, along with the likely public perceptions of marking animals using that method.

The second, much larger volume is entitled ***Methods for marking New Zealand wildlife: amphibians, reptiles and marine mammals*** by N.J. Beausoleil, D.J. Mellor and K.J. Stafford. This companion volume reviews, in detail, the methods discussed in the booklet. The book provides more methodological information and reviews the international literature relating to marking methods for amphibians, reptiles and marine mammals. The authors also discuss the potential effects that the application, wearing or observation of marks can have on study animals, and the consequences of such effects for the animals and for the quality of data collected. These publications present wildlife scientists with information on the range of options available for marking animals, and also provide advice on objectively selecting the most appropriate method for a species or population. Researchers should be familiar with the general considerations and ethical and scientific responsibilities associated with marking before beginning any project involving wild animals. In providing such information, these publications will be of great value to any scientist considering, or actively involved in, wildlife research. They will also be of use to animal ethics committees considering applications to undertake studies that involve marking of wildlife.

Please approach DOC Science Publishing to obtain the first volume free of charge, indicating the number of copies you would like and details of your postal address for delivery. For further information on cost and availability of the second volume, please contact:

DOC Science Publishing
PO Box 10 420
Wellington
New Zealand
Fax 64 4 496 1929
Email science.publications@doc.govt.nz

The evolution of thought: evolutionary origins of Great Ape intelligence

Anne E. Russon and David Begun
Cambridge University Press March 2004
ISBN 0-521-78335-6

"This book synthesizes the approaches of hominoid cognition, psychology, language studies, ecology, evolution, palaeoecology and systematics toward an understanding of great ape intelligence". (DA Information services:http://www.dadirect.com)

Empty cages: facing the challenge of animal rights

Tom Regan
Rowman and Littlefield
ISBN 0742533522

In a review of this book that appeared *in New Scientist* (22 May 2004, page 48), David Thomas (RSPCA, UK) says: "No one reading this lucidly written book could be left in any doubt that man's inhumanity to man, terrible though it is, is dwarfed by our inhumanity to other

animals. The question is whether such exploitation is ethically justified: do animals have rights?" Additional information about the book is available from:
http://tomregan-animalrights.com/book.html

The laboratory Rat: a natural history
Manuel Berdoy
Film (27 minutes)
www.ratlife.org

This award-winning documentary written and produced by Dr. Manuel Berdoy of Oxford University, depicts how quickly laboratory rats return to their wild ways when given the opportunity to act out natural behaviours outdoors.
(Source: The Humane Society of the United States)

If you tame me: understanding our connection with animals
Leslie Irvine
ISBN 1-59213-241-3

Nearly everyone who cares about them believes that dogs and cats have a sense of self that renders them unique. Traditional science and philosophy declare such notions about our pets to be irrational and anthropomorphic. Animals, they say, have only the crudest form of thought and no sense of self at all. Leslie Irvine's "If You Tame Me" challenges these entrenched views by demonstrating that our experience of their behaviour tells a different story.
http://www.dadirect.com/

Measuring and auditing broiler welfare
Edited by C. Weeks and A. Butterworth
ISBN 0851998054

In response to concerns about animal welfare, food assurance schemes are now incorporating standards for animal welfare. This is particularly important in the poultry industry where much attention has focused on the welfare of broilers. However, there is as a result a greater need for scientifically based methods of the measurement and auditing of welfare.
http://www.dadirect.com/

New book from CSIRO Publishing

ANZCCART has received the following communication from Melinda Chandler, Marketing Coordinator, CSIRO PUBLISHING:

CSIRO PUBLISHING is pleased to announce the forthcoming release of a new publication that we believe would be of interest to your members and readers of ANZCCART NEWS:

Haematology of Australian Mammals by Phillip Clark (http://www.publish.csiro.au/nid/21/pid/3470.htm).

Phillip Clark's specialty volume on haematology brings together the latest information on the blood and its constituents of Australian eutherian mammals and marsupials. This volume should be on the shelf of any veterinary professional working with the occasional marsupial, and on the desk top of the Australian mammal specialist.

Review by Dr Richard J. Montali, DVM, Dipl., ACVP, Dipl. ACZM - former Pathologist, Smithsonian National Zoological Park, Washington, USA and Acting Pathologist, Taronga Zoo, Sydney, Australia:

"*Haematology of Australian Mammals* is a valuable guide to collecting and analysing the blood of Australian mammals for haematological studies and diagnosis and monitoring of disease. It outlines general principles for selecting sites for blood collection and for handling and analysing samples to achieve quality results. Chapters then describe the morphology and function of haematological cells, with reference to the known characteristics of Australian mammals in health and the changes that may be encountered in response to common diseases. Haemoparasites that have been encountered in Australian mammals are discussed next, along with comments on their pathogenicity.

Lastly, haematological values from previously published studies are compiled into species-specific tables, providing a convenient reference to compare to the results of clinical cases.

Written descriptions and colour photomicrographs of haematological cells from more than 100 species aid the identification of cells and the detection of abnormalities. Information is provided throughout for representative species from all the major groups of native Australian mammals including monotremes, polyprotodont marsupials, diprotodont marsupials, rats and mice, bats and marine mammals".

Animal research website

To coincide with its report issued earlier this year entitled: "The use of non-human animals in medical research: A guide for scientists" The Royal Society (UK) has developed a comprehensive website focusing on the use of animals in medical research.

(Follow the links from http://www.royalsoc.ac.uk/)

Award for 3Rs research

Intervet International has set up a new award to encourage scientists or research institutions to work in areas that encourage the 3R-concept, i.e. reducing, refining or replacing the use of animals in testing for development and production of veterinary medicines. Information about the award, which is named after Dieter Lutticken who led Intervet's research and development for many years, can be obtained from communications@intervet.com. Applications close on 30 September 2004. (Source: World Veterinary Association -http://www.worldvet.org/).

Review of AVERT / ANZCCART Conference

A review by Andrea Nolan (University of Glasgow, UK) of the Proceedings of the 2001 joint conference between AVERT and ANZCCART, held in Melbourne on 14 – 16 May 2001, has been published in *Animal Welfare* Volume 13 (1) (2004) page 99. Mary Bate from the University of Newcastle, NSW, edited the Proceedings, and copies can be purchased from Mary.

New national centre in the UK

A "National Centre for Replacement, Refinement and Reduction of Animals in Research" is being set up in the UK to "study means of reducing the use of animals in research and improving the animals' lives".

The centre is to be directed by Vicky Robinson, currently head of the MRC's Centre for Best Practice for Animals in Research (CBPAR). It will be overseen by an independent board, chaired by Leslie Turnberg, scientific advisor to the Association of Medical Research Charities. http://www.homeoffice.gov.uk/comrace/animals/index.html

In an article in *The Observer* (Sunday May 23, 2004) headlined "Leading surgeon backs animal testing" Robin McKie, Science Editor, reports that "One of the country's top brain surgeons (Professor Tipu Aziz of Oxford University, UK) has launched an uncompromising attack on the governments decision to set up a centre to promote alternatives to animal experimentation". Further details can be obtained from: http://www.guardian.co.uk/animalrights/story/0,11917,1222755,00.html

Readers are invited to inform the editors of any relevant events, for inclusion in this section.

ANZCCART Annual Conference
Animal Ethics: New Frontiers, New Opportunities
Sydney, Australia 26 – 28 September 2004
www.adelaide.edu.au/ANZCCART

10th International Conference on human-animal interactions
Glasgow, Scotland, 6-9 October 2004
www.glasgow2004ad.com

Advances in the science and application of animal training
Glasgow, Scotland, 6-9 October 2004
www.glasgow2004ad.com

The Australian and New Zealand Society for Laboratory Animal Science (ANZSLAS)
Legends Hotel, Gold Coast, Queensland, Australia, 26 - 29 October 2004
http://www.anzslas.org/

The Australasian Society of Zoo Keeping (ASZK)
Animal Training seminar with Ken Ramirez
North Ryde RSL, Sydney, 15-19 November 2004
www.aszk.org.au

5th World Congress on Alternatives & Animals in the Life Sciences
Berlin, Germany, 21 – 25 August 2005
www.ctw-congress.de/act2005

Correction

On page 139 of the Proceedings of the 2003 ANZCCART Conference, when providing examples of intrusive experimentation, I state that:

"In the latest series of papers, Grace et al. (2003) continue to test for selenium using intrusive liver bioassays on living animals with no anaesthetic".

The 2003 paper cited refers to a liver biopsy technique by A.T. Dick published in 1944 (Australian Veterinary Journal 20, 298-299). The technique describes the administration of 20% novocain-adrenalin solution as local anaesthetic. It is therefore apparent that local anaesthetic was provided in the 2003 study.

I apologise for the error.

Yours sincerely
Dr Michael Morris

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