

Animal Ethics Committees: The Missing 'W' Word

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Firstly, let's delve into the past to find the origins of our animal research regulations. In 1978 with the 2nd edition of our Code (currently known as *The Australian Code of for the Care and Use of Animals for Scientific Purposes*) the concept of Animal Ethics Committees was introduced. One year later the United States introduced policy requiring committee review which eventually led to their use of Institutional Animal Care and Use Committees. It seems that the United Kingdom followed several years later in 1986 with their Animal Welfare and Ethical Review Bodies. My memory of this era is somewhat hazy to say the least.

So into the present, could any of these names be preferable to the Animal Ethics Committee? Does the name really matter? I would contend that the name is important, as it indicates the overall purpose of the committee and adds further weight and value to their decisions. This is particularly the case in the public arena where media releases will often use the term Animal Ethics Committee without much further information about the function(s) of that committee. Most of us would have seen the odd shop front whilst travelling overseas with a strange or

unintentionally humorous name and understand how this might lead to a false understanding of the operations. So names can be important and drive public perception about the role of the committee. It should also be emphasised that public understanding is a key component when it comes to maintaining the reputation of committees and public confidence in the important work they undertake.

Our legislation and regulators shape the role of committees. A brief review of The Code shows that the word 'ethics' and its derivatives occur 55 times when not in the form of 'Animal Ethics Committee', so clearly this is an important component. So what about 'welfare'? This is only mentioned 20 times, but 'wellbeing' rates a whopping 204 mentions! So going by The Code, maybe we should be calling them 'Animal Wellbeing Committees'. However, if we delve further, state regulatory bodies usually place animal research under the 'welfare' banner. EU and US legislation also have a focus on 'welfare'. The area of expertise one studies to develop knowledge on minimising pain and distress is generally 'welfare' and hence we have 'Animal Welfare Officers' or 'Veterinary Welfare Officers'. Of

course the Category C member of every AEC is also focused on welfare. The use of 'welfare' may also provide some degree of credibility in regard to expertise and scientific evidence that the animals are being cared for appropriately.

If we look further into the cogs of the committee's operations, the majority of their work is focused on welfare aspects: improvements in analgesia; housing; anaesthetics; surgery; substance administration; monitoring/intervening and so forth – all aimed at protecting the wellbeing or the welfare of the animals. Yes, whether a project is right or wrong and should proceed (i.e. an ethical debate about the project) comes into play, but this doesn't usually feature in discussions as much as welfare-related topics. Ethical issues are increasingly discussed and resolved prior to project submission and outside the AEC with those deemed to be unethical not going to the meetings, particularly now that it is a requirement that everyone involved must consider the work proposed to be ethically justified. So is the key role of every AEC to consider the ethics of an application or the welfare of the animals? This in turn leads on to the key question I wish to pose. Should we be calling these committees animal ethics committees or animal welfare committees?

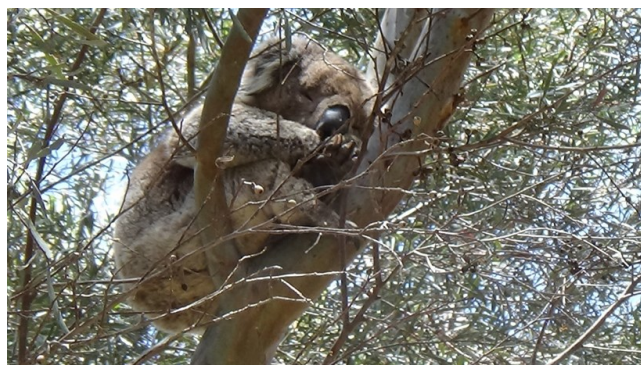
Have you considered adding a 'W' word to the name of your AEC?

ANZCCART Has Moved

After months of preparation and as was indicated in the last edition of ANZCCART News, the University of Adelaide's decision to sell the Thebarton campus, where ANZCCART has been located for the past decade, prompted our recent move across Adelaide to the University's Waite Campus. Accordingly, ANZCCART is now based in Room G8 of the Hannaford Building at the Waite Campus and this can be located using the University's on-line campus maps found at: <http://www.adelaide.edu.au/campuses/mapscurrent/waite.jpg> with the main entry to ANZCCART being the big green door located in the breezeway that runs through the building.

For those who are unfamiliar with Adelaide, the Waite campus is primarily devoted to the study of agricultural sciences, with a particular focus on oenology (and so is very familiar to a number of

winemakers from around the World). It is located approximately 7½ km SSE of the Adelaide CBD and is right at the base of the Adelaide Hills. This means that the campus backs onto a large area of native bushland that runs up into the Adelaide Hills. As a result, the campus is also home to a family of three kangaroos, around 7 koalas and an array of native bird species – including a family of parrots that have set up residence in one of the ventilators of our building. So this is truly a beautiful campus with superbly maintained gardens and native plants – all of which can be admired as the offices of ANZCCART are now blessed with windows and views for the first time in nearly 15 years, that do occasionally offer special sights (see below).



One of our nearest neighbours enjoying a post-lunch siesta

So even though our move has meant a slight down-sizing of the office from four rooms down to three, there are definite compensations that ensure this is seen as a very positive move by everyone associated with ANZCCART.

Vale

ANZCCART has had the great privilege of enjoying the support of a number of eminent people over the years, often and most particularly here in Adelaide where we are based and it is with great sadness that we much acknowledge the passing of such people during the past few weeks; Professor David Boyd and Associate Professor Graham Mayrhofer.

Graham Mayrhofer was well known among Australian immunologists, having worked in the field for decades, but he was also a man who cared deeply for the animals his work occasionally involved using, to the extent that he served on the University of Adelaide AEC as a Category B member for over 20 years. A testament to his devotion to the welfare of animals in science, was

the fact that he remained on the AEC for many years after his retirement and was still an active member at the time of his passing. Often a man of few words, Graham would frequently allow discussions to progress until he felt he had something significant to contribute, so when he did speak up you knew it was worth listening. Graham passed quite suddenly while traveling in Turkey with his wife and friends and will be greatly missed by everyone who knew him.



David Boyd was also a prominent AEC member in South Australia for many years and was in fact Chair of the University of Adelaide AEC when ANZCCART proposed moving from Canberra back in 1991. As Chair of the AEC at the time, David obviously played a very significant role in the negotiations that eventually saw ACCART (as we were back then) take up the offer from the University of Adelaide and agree to re-locate to the Waite Campus. Best known for his work as a geologist, David kept his role on the AEC fairly quiet (as one often did back in the 90s) but he did take his role as Chair of the AEC extremely seriously and devoted a lot of time to it, ensuring that any animal work done on his watch was carried out at the highest standards of the time.

Ironically, Professor Boyd's passing on 2 November, coincided with ANZCCART re-locating to the Waite Campus yet again, almost exactly 25 years later.



It was with sadness that we learned of the passing of Dr Margaret Holmes on 28 November 2016. Margaret was co-author of the first two ANZCCART Fact Sheets ever published – The Mouse (parts 1 and 2), back in 1993 - and was widely regarded for her expertise.

Margaret was closely associated with the Walter and Eliza Hall Institute for almost 80 years, first as an employee and, since her retirement, as a mentor for staff as well as a wonderful friend for many. Margaret first joined WEHI as a school leaver in 1938, one of only 12 staff. In a male-dominated academic world, Margaret had the talent and tenacity to pursue a scientific education while she worked. She later earned a PhD and a scholarship to undertake research in Europe. She was subsequently recruited back to WEHI in 1958 by then director Sir Frank Macfarlane Burnet, where she remained until her retirement in 1986. In this period, she oversaw the expansion of staff and

infrastructure that underpinned a golden era of discovery at the Institute. Margaret was also an important scientific contributor to many landmark research achievements in understanding the causes and treatment of autoimmune conditions.

Margaret's expertise in animal husbandry was particularly notable, and she oversaw the establishment of the Clive and Vera Ramaciotti Laboratories in 1970, a pioneering facility that continues today. Becoming the Institute's General Manager in the late 1970s, Margaret was an integral member of the design and development of their new Parkville building that was opened in 1985 and is still in use today.

In 1986 and at the age of 65 – the age of compulsory retirement – Margaret left the Institute as a staff member, but remained a friend for the next three decades. She also remained an active member of ANZLAA for several years after her retirement and remained an important and willing source of expertise for ANZCCART during her retirement. She will be missed.

Recent Articles of Interest

Beer Eases Final Moments for Euthanized Invertebrates

Researchers in New York have adapted an old gardening method of snail control for anaesthetising and potentially euthanizing snails in the laboratory. They have been using beer or a 5% ethanol solution to painlessly anaesthetise snails in a stress free manner that allows simple manipulation or stress free humane killing in 95% ethanol. It is really the two step process with the low dose ethanol as a first, anaesthetising step which is important as the emersion of conscious snails in 95% ethanol straight off results in them showing signs of physical stress: they quickly retract their tentacles, expel mucus and defecate. They retract deeply into their shells, making their tissue more difficult for researchers to access. The preliminary dip in beer or 5% ethyl alcohol solution, gradually immobilizes the snails and makes them unresponsive to stimuli such as a needle scrape or prick. Left alone, they are back to normal in about an hour. But if, in that anesthetized state, they are dropped into 95% ethyl alcohol, they die quickly without reacting. Read more at:

<https://www.alnmag.com/news/2016/10/beer-eases-final-moments-euthanized-invertebrates>

Study Finds Pain is Contagious - Should that Affect How We House Lab Animals?

Laboratory mice can sense - and feel - when their cage mates are in pain and it would seem that their sense of smell is a major part of this "empathy". This discovery was made by researchers at the University of California, Berkeley. The research team wasn't studying pain initially, but the effects of alcohol withdrawal on laboratory mice.

The researchers expected that the mice undergoing alcohol withdrawal showed a higher sensitivity to being poked in the foot. They didn't expect to find that the healthy cage mates of these mice would also be more sensitive to pokes to the foot. These cage mates also displayed other signs of pain sensitivity, such as quickly pulling their tails out of hot water and licking a paw after an irritating stimulus.

Further research revealed that pain spread through olfactory cues. When placed on bedding where mice in pain had slept, other laboratory mice displayed increased sensitivity to pain. Even more amazing, they found that if mice are experiencing pain, then mice that are housed in the same room as them also experience pain, even though no manipulations are performed on them. However, this study also shows that mice that experience this pain are not necessarily stressed out by it. They show increased sensitivity to touch, temperature, or an irritant, indicating that they are in a pain state, but they do not show signs of anxiety or elevated stress hormone levels. So they show increased pain responses, not because they are stressed by that pain but because they receive specific pain-related cues. This has implications for development of strategies of treating chronic pain and potentially for how we house experimental animals. Read more at:

<http://advances.sciencemag.org/content/2/10/e1600855.full>

Brain implants allow paralysed monkeys to walk

In China, Swiss researchers have been conducting experiments on monkeys with the aim of treating spinal-cord injuries. An implant in the brain of these monkeys decoded signals that had been associated with leg muscles and sent these signals to other devices in the lower spine which then triggered muscles in the legs to move.

After ten years of conducting experiments on rats, researchers progressed to using monkeys and have had similar results. A trial has already started in Switzerland using a similar version of the technology in two people with spinal-cord injuries. The study hopes to help open new research and treatment options for people living with paralysis.

Read more at:

<http://www.nature.com/news/brain-implants-allow-paralysed-monkeys-to-walk-1.20967>

Frontline attack against HIV infection Is closer to reality

Researchers at the Basil Hetzel Institute, Adelaide have found that the combination of a common cold virus and the injection of a DNA-based vaccine has resulted in the immune system protecting against HIV.

The common cold virus was given to mice through their nose while the DNA-based virus was injected through the skin resulting in specific responses in the immune system.

The study showed that the HIV infection had reduced significantly in the mice and supports the need for further research into this method. Read more at: <http://www.adelaide.edu.au/news/news89402.html>

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conduct of animal-based research and teaching
and the welfare of animals used.**

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