Dear [Name]

Your correspondence of 18 December 2007 to Professor Iain Clarke, Head of the Department of Physiology, in relation to marmoset experiment at Monash University has been passed to our office for comment and reply. Although your letter did not state where you had read the article, I believe it was the article in the Australian Association for Humane Research Newsletter No 115.

In relation to your concerns, I would like to clarify that Monash University is internationally recognised as a major centre for medical research and many important advances in the understanding and treatment of diseases have been achieved by world-class staff and Monash University is committed to ensuring the highest ethical and humane use of animals in research and teaching in accordance with applicable laws as well as to ensuring the highest possible standards in the care, well-being, and quality of life. All members of Monash University who are engaged in research conduct their work with integrity and intellectual honesty at all times, and with appropriate respect for animals. In order to protect the welfare of animals, all research involving animals is stringently reviewed by Monash University Animal Ethics Committees; animals are used only for valid scientific studies with a reasonable expectation of obtaining knowledge for the potential benefit of people and animals. The university recognises that any experimentation using animals should only take place if it is fully justified and if consideration is given to the possible alternatives. Monash University regards the use of animals in research and teaching as a privilege, not a right.

I would like to point out that one of the researchers involved in the papers cited in the newsletter recently received a National Health and Medical Council (NHMRC) Award for excellence in Health and Medical Research (the award is designed to show the NHMRC’s appreciation of this researcher’s considerable scientific research, innovation and leadership towards improving human health, and is aimed at the research and ethics community). Furthermore, one of the mentioned publications in the newsletter was also awarded as a best publication of the year by the Australian Neuroscience Society in 2000, rather than reaching no conclusion as implied by the newsletter.

With reference to specific comments in the article:

"Differences between marmoset and the human brain". There are differences between human and primate species and this could be advantageous in research. For example, the marmoset brain surface is less folded than that in the macaque and human brains, thus making it technically easier to locate deeper brain structures for electrophysiological recordings of this species. Research at Monash University laboratories and the other laboratories around the world shows that all mammalian brains share the same basic structure and chemistry, while differing in details. The degree of similarity of the primate model to the human disease is often used to determine the appropriateness of the model for preclinical assessment of novel treatments.

"Safe, non-invasive imaging can be used". It is misleading to state that there are alternative ways to obtain the same information without the requirement for animal use. While recognizing the value of research using non-invasive imaging in humans, limitations of these techniques must also be reported. Imaging experiments are best suited to reveal various parts of the brain that are involved in a particular task. These techniques are very limited in revealing how the brain operates at the cellular level. Based on the detailed knowledge obtained in animals, models of brain function can be generated and then be incorporated in the design of imaging experiments. Thus, rather than substituting animal research, brain imaging experiments offer a complementary level of understanding, which helps bridge the gap between the in-depth knowledge obtained in animals and the human clinical practice. It is also misleading to state that animal models yield little insight on the human brain, particularly the visual system. Based on research results conducted in our...
and other laboratories, medical science was able to restore vision in humans. It should be also be noted that there is a
distinct difference in visual impairment caused by eye (ocular visual impairment) and brain lesions (neurological visual
impairment). Although ocular visual impairments can be treated, there is little or no treatment available for neurological
visual impairment, even though the eyes may be intact following stroke or motor vehicle accident. This research finding
may lead to better compliance with treatment and improved quality of life for people with this visual disorder.

The statement about “three decade’s controversy about the boundaries of visual areas…” is not part of any of the
studies cited in the newsletter. However, it vaguely resembles something from the introduction of another study, on a
different problem, and which did in fact solve that problem once and for all! It is true that this was a difficult problem,
taking 30 years to solve; this solution required modern techniques which were not available 30 years ago. If anything,
this demonstrates that the scientific method works.

The article in the newsletter completely misrepresents the conclusions of the cited 2007 paper. The actual conclusion is
that despite minor differences which can be explained due to the different sizes of the eyes, the three species
(marmoset, macaque and human) are fundamentally similar. Thus, marmosets can be used as valid models to study that
aspect of human vision (how the brain analyses the motion and speed of objects in the visual field).

The description of the electrophysiology protocol (“How marmosets are prepared for recording neurons in the brain”) does
not mention the crucial fact that animals were kept under deep anaesthesia throughout the experiment and
constantly monitored to ensure that they never recovered consciousness as with human surgery. The research does not
lead to undue suffering for animals in the sense of pain and discomfort; stereotaxic frames are also used in human
neurosurgery, in some cases while the patient is fully awake, as a safe and painless way of holding the head still, thus
avoiding damage to the brain.

It was concerning that the article cited Dr Katy Taylor as an expert in the field. A literature search for Dr Taylor’s
publications reveals that she has never conducted research in the field of neurology or brain physiology. However, she
has published numerous articles objicing to the use of animals in medical research. The Monash University
researchers mentioned in the article are experts in the field with international reputations. They were not able to
interpret Dr Taylor’s statement that “there are numerous differences in the way monkeys and humans process visual
information”.

Finally, it is not a waste of public money if it results in better understanding and progresses effective treatments for
people who suffer from debilitating and life-long visual impairment. Furthermore, NHMRC grants for medical research
are very competitive: projects are subjected to rigorous examination by scientists who are external to the research
groups, the animal ethics committees and Monash University. Only 25% of research proposals are accepted and funded
per annum. It is unfortunate that the author of the article believes that federal funding of medical research is a waste of
taxpayers’ money.

Please be assured that pain and distress are not compatible with good research in animals, and are not tolerated at
Monash University.

Kind Regards,

On behalf of Ross Day
Professor Ross Day
The Chair
Monash University Animal Welfare Committee