# Code of Ethical Conduct for the Use of Animals for Research, Testing and Teaching

## **PREAMBLE**

This is the Code of Ethical Conduct of the University of Waikato (the Code) approved by the Director-General of the Ministry for Primary Industries pursuant to the Animal Welfare Act 1999.

Users of animals for research, testing and teaching have ethical and legal responsibility for the welfare of those animals.

The major legal responsibilities are set down in the Animal Welfare Act 1999 and its subsequent amendments.

The Code outlined in this document has been drafted to comply with the above Act.

The Code is administered by an Animal Ethics Committee, which is an advisory committee to the Vice-Chancellor and answerable, through the Academic Board, to the Vice-Chancellor. Its composition, terms of reference and procedures are set down in subsequent sections of this document.

#### 1. APPLICATION

1.1 This Code applies to all University of Waikato staff and students wherever they are. The Code also applies to any other person involved in the use of animals at the University of Waikato for research, testing and teaching, and to persons or outside organisations approved under section 9.18 of the Code. All animals are protected by the Code, whether they are bred on the campus, brought onto the campus, animals in the wild, or animals held on or off campus for University purposes.

## 2. EFFECTIVE DATE

2.1 This Code came into effect on 10 December 2014, approved by the Director-General of the Ministry for Primary Industries.

## 3. **DEFINITIONS**

3.1 In this Code the following expressions have the meanings assigned to them unless the context otherwise requires:

"Act" means the Animal Welfare Act 1999 as in force at the relevant time and includes any Act passed in replacement of that Act.

"Animal" has the meaning assigned to it in section 2 of the Animal Welfare Act 1999 as follows:

- (1) means any live member of the animal kingdom that is:
  - (a) a mammal, or
  - (b) a bird, or
  - (c) a reptile, or
  - (d) an amphibian, or
  - (e) a fish (bony or cartilaginous), or
  - (f) any octopus, squid, crab, lobster, or crayfish (including freshwater crayfish), or
  - (g) any other member of the animal kingdom which is declared from time to time by the Governor-General, by Order in Council, to be an animal for the purposes of this Act, and
- (2) includes any mammalian foetus, or any avian or reptilian pre-hatched young, that is in the last half of its period of gestation or development, and
- (3) includes any marsupial pouch young, but
- (4) does not include:
  - (i) a human being, or
  - (ii) except as provided in sections (2) or (3) of this definition, any animal in the pre-natal, pre-hatched, larval, or other such developmental stage.

"Code" means this Code of Ethical Conduct.

"Committee" means the Animal Ethics Committee appointed pursuant to this Code.

"Manipulation" has the meaning assigned to it in section 3 of the Animal Welfare Act 1999 as follows:

- (1) In the Act, unless the context otherwise requires, the term "manipulation", in relation to an animal, means, subject to section (2), interfering with the normal physiological, behavioural, or anatomical integrity of the animal by deliberately:
  - (a) subjecting it to a procedure which is unusual or abnormal when compared with that to which animals of that type would be subjected under normal management or practice and which involves:
    - (i) exposing the animal to any parasite, micro-organism, drug, chemical, biological product, radiation, electrical stimulation, or environmental condition, or
    - (ii) enforced activity, restraint, nutrition, or surgical intervention, or
  - (b) depriving the animal of usual care
  - and "manipulating" has a corresponding meaning.
- (2) The term defined by subsection (1) does not include:
  - (a) any therapy or prophylaxis necessary or desirable for the welfare of an animal, or
  - (b) the killing of an animal by the owner or person in charge as the end point of research, testing or teaching if the animal is killed in such a manner that the animal does not suffer unreasonable or unnecessary pain or distress, or
  - (c) the killing of an animal in order to undertake research, testing or teaching on the dead animal or on pre-natal or developmental tissue of the animal if the animal is killed in such a manner that the animal does not suffer unreasonable or unnecessary pain or distress, or
  - (d) the hunting or killing of any animal in a wild state by a method that is not an experimental method.
- (3) The method of killing in (2) must be approved by the Committee.

## 4 AIMS

- 4.1 The aims of this Code are:
  - to ensure compliance with the Act
  - to emphasise the responsibilities associated with research, testing and teaching involving the use of animals
  - to promote the "Three Rs"
    - the replacement of animals with non-animal alternatives including in vitro and virtual model systems and the replacement of sentient with less sentient animal species
    - the **reduction** in the use of animals for research, testing and teaching by ensuring that studies are
      designed to be scientifically and statistically valid using the minimum number of animals required
      to achieve these goals, and that studies are not necessarily repeated
    - the refinement of techniques that eliminate or minimise the potential pain, suffering or distress, and enhance the welfare of animals used for research, testing and teaching. Pain or suffering must be reduced as much as possible, and must be weighed up against the benefit to humans, other animals and the environment.

## 5. IMPLEMENTATION OF THE CODE

- 5.1 The University expects that all those to whom this Code applies involved in the use of animals will observe it in the spirit as well as the letter. Advertent or inadvertent breaches of the Code should be corrected immediately and reported to the Committee who must take action to rectify the matter, if this has not occurred. Deans have a special responsibility to see that staff in their Faculty observe the Code.
- 5.2 The maximum penalty (for an individual) for offences is set out under Part 6 of the Act and under the Animal Welfare (Records and Statistics) Regulations 1999.

#### 6. PROCEDURES TO BE FOLLOWED

6.1 All applications for protocols involving research, testing and teaching in which animals are to be used must be submitted to the Committee for approval. Such protocols must list all staff members and students involved in the manipulations and be signed by the principal applicant for the protocol. Where the manipulation is

undertaken as part of a professional service by a specialist not otherwise involved in the project, that person must be named on the protocol and made aware of their obligations under the Code. It is the responsibility of those signing to ensure that all personnel involved in the manipulations and care of the animals are aware of their obligations under the Code. No such research or teaching exercise may commence without prior approval by the Committee. When research or testing is undertaken at a place where approval of another animal ethics committee is required, approval by the University of Waikato Committee is still required.

- 6.2 All applications for protocols must be submitted by the principal applicant to the Secretary of the Committee at least seven (7) days before a regular meeting. Application forms are available from the University of Waikato Research Office website: <a href="http://www.waikato.ac.nz/research/ro/ethics/animal\_ethics.shtml">http://www.waikato.ac.nz/research/ro/ethics/animal\_ethics.shtml</a>
- 6.3 The principal applicant must indicate in the application:
  - (a) their experience (and where appropriate, that of others listed), with the procedures proposed in the application
  - (b) that they have read the Code and will abide by it, and
  - (c) that they will notify the Committee of any unexpected outcomes affecting animal welfare.
- 6.4 Approval for ongoing research, testing or teaching procedures must be renewed at least every three (3) years.
- 6.5 All amendments to protocols must be approved by the Committee. Amendments not judged by the Chairperson to adversely affect welfare or increase numbers may be approved by a subcommittee comprising the Chairperson or Deputy Chairperson and at least two other members of the Committee from sections 8.2 (d), (e) or (f) of this Code.
- 6.6 Any event during a manipulation that impacts adversely on animal welfare beyond the approved manipulation(s) must be notified immediately to the Chairperson of the Committee followed by written notification within ten (10) working days.
- 6.7 Any adverse event during a manipulation must be dealt with promptly. If an animal is injured or sick as a result of the adverse event appropriate veterinary care must be sought immediately. The adverse event must be notified to the Chairperson of the Committee as soon as practicable. The adverse event must be discussed at the next Committee meeting and procedures developed to prevent any re-occurrence of the event if it is preventable.
- 6.8 Subject to the Committee's agreement, the principal applicant may attend a meeting in support of an application. Similarly the Committee may require the principal applicant to be present for discussion of an application.
- 6.9 In the case of the Committee not approving an application the principal applicant may submit a revised application or appeal the decision to the Committee. In the latter situation, further justification or expert opinion in favour of the application must be produced.

#### 7. EXEMPTIONS

- 7.1 The procedural requirements of this Code do not apply:
  - (a) to tissues obtained from a slaughter house, farm or at a routine post-mortem examination, where their use is incidental to the reason the animal died or was killed
  - (b) to animals killed to provide tissues for research, testing or teaching
  - (c) to the capture or killing of wild animals
  - (d) to animals being farmed or otherwise maintained in captivity under normal animal husbandry practices so long as there are no additional manipulations
  - (e) when a staff member or student of the University is attached to an overseas institution and participates in research, the responsibility for which clearly resides with the host institution. In this instance, the proposed work should be considered under the regulations pertaining to that country's laws on the use of animals in research, testing and teaching, provided that there is a mechanism in place.
    Notwithstanding this, the Committee may require notification of the type of research being undertaken and conditions pertaining to that research. If there is doubt in any particular situation, the matter should be discussed with the Committee.

#### 8. ANIMAL ETHICS COMMITTEE PROCEDURES

- 8.1 The Vice-Chancellor has established an Animal Ethics Committee which has the functions, duties and powers conferred upon it by this Code, and such others as are now or may hereafter be conferred upon it by the Act or the Regulations.
- 8.2 The Committee comprises at least six persons appointed annually by the Vice-Chancellor as follows:
  - (a) One senior member of staff of the University who is capable of evaluating each proposal involving manipulation of animals in terms of the qualifications and skills of the proposer and others involved and the scientific or teaching value of the proposal, who is chairperson
  - (b) One senior member of staff of the University who is appropriately qualified and experienced in the manipulation and use of animals for research and teaching
  - (c) An Animal House technician
  - (d) A veterinarian, who is not a member of staff or otherwise associated with the University, nominated by the New Zealand Veterinary Association
  - (e) One person who is not a member of staff or otherwise associated with the University, nominated by an approved animal welfare organisation
  - (f) A lay person, who is not a member of staff or otherwise associated with the scientific community of an animal welfare agency, nominated by a territorial authority or regional council.
  - (g) Such additional members as may be requested by the Committee and appointed by the Vice-Chancellor in consultation with the Chairperson of the Committee.
- 8.3 The Committee must be given the opportunity to endorse the appointment of the Chairperson at the first meeting of each year.
- 8.4 The Committee normally meets monthly, and on such other occasions as are desirable to enable it fully to carry out its responsibilities.
- 8.5 The Committee reaches decisions by consensus.
- 8.6 Reasonable prior notice of the time, date, place and proposed business of each meeting must be given to each member.
- 8.7 A quorum for each meeting is not less than four members, of whom at least two must be from those appointed under sections 8.2 (a), (b) or (c) and at least two from those appointed under sections 8.2 (d), (e) or (f) of this Code.
- 8.8 Vacancies in the membership of the Committee do not invalidate its actions, but any vacancy must be filled as soon as practicable in accordance with sections 8.1 and 8.2 of this Code.
- 8.9 The Committee must maintain a complete record of all applications and supporting material presented to it, and of all proceedings in respect of such applications and any other matters referred to the Committee. Such records must be retained for not less than 10 years.
- 8.10 When decisions are required between meetings of the Committee, temporary consents to an application involving manipulations that have a Grade of Manipulation of 'A' or 'B' or minor amendments to an approved protocol may be given by a subcommittee of not less than three members of the Committee of whom one must be the Chairperson or Deputy Chairperson and at least two must be from those appointed under sections 7.2 (d), (e) or (f) of this Code.
- 8.11 The Committee may use teleconferencing or e-mail when making decisions under section 8.10 of this Code.
- 8.12 Every temporary consent or amendment to a protocol must be brought before the next meeting of the Committee; which may confirm or revoke the consent or amendment, or confirm it subject to conditions or amended conditions.
- 8.13 Where a temporary consent is revoked, the relevant work must immediately cease save for any steps necessary to safeguard the welfare of animals involved.
- 8.14 Where an amended approval is given, the work may continue only in accordance with such approval.

- 8.15 Each new member of the Committee will receive guidance regarding the function of the Committee. An induction process will be based on the National Animal Ethics Advisory Committee guidelines and induction pack and new members must be given a copy of the Code.
- 8.16 In the event of any member being absent for a protracted period of time, a replacement person must be nominated by the nominating party concerned, to stand in for the duration of that particular member's absence.
- 8.17 The Committee will conduct its meetings according to the Rules of Procedure for the University Council and its Committees.
- 8.18 Committee members appointed under sections 8.2 (d), (e) and (f) of this Code will receive a remuneration and be reimbursed for expenses.

## 9. FUNCTIONS, DUTIES AND POWERS OF THE COMMITTEE

- 9.1 The principal functions of the Committee are:
  - (a) To ensure that any experimental procedure conducted by staff and/or students of the University involving live animals complies with the Animal Welfare Act 1999 and this Code
  - (b) To consider all proposals involving experimentation on animals conducted by staff and/or students of the University, prior to commencement, to ensure that they comply with this Code
  - (c) To exercise the powers and responsibilities set out in this Code
  - (d) To make recommendations to the Vice-Chancellor (who is the code holder under the Act), through the Academic Board, with regard to any amendments to this Code
  - (e) To consider and respond to any relevant matters referred to it by the Vice-Chancellor or the Academic Roard
  - (f) To provide an annual report to the Vice-Chancellor, through the Academic Board, on its business under these terms of reference.
- 9.2 In considering any application put to it involving the manipulation or use of any animal, the Committee must specifically take into account the purpose of Part 6 of the Act and such of the following matters as it considers relevant:
  - (a) What consideration has been given to the use of an alternative to manipulation, involving reduction, refinement or replacement, and what further consideration (if any) ought to be given to that or any other practicable alternatives, whether or not amongst those mentioned in the application
  - (b) Whether there is good reason to believe that the findings will add to the scientific understanding of biological functions and behaviour, and will extend the body of knowledge aimed at improvement in the health and welfare of humans or animals, or the productivity of animals; or whether manipulation is a required (as opposed to merely convenient) part of an educational curriculum or for the purpose of teaching such curriculum; or whether there is any reasonably practicable alternative to using animals for assessing the potency, effectiveness or toxicity of substances or preparations of established or potential usefulness for medical, scientific or commercial purposes
  - (c) What scientific, technical and ethical criteria have been employed in choosing an appropriate animal species, having regard not only to the nature of the experimental work and the question posed in planning it, but in particular, whether there are other techniques available, and which will prove equally appropriate. What weighting (if any) has been given to expediency and economic factors. Endangered or threatened species should not be used unless the findings are expected to assist the survival of that species. Where necessary, any statutory approvals must be obtained
  - (d) No more animals are to be used than are necessary to ensure unequivocal interpretation of the findings. Such consideration should include the design of the study or teaching exercise, the level of accuracy necessary in the results, the possible confounding effects of animal variation and the needs of statistical analysis. Whether duplication of experiments is involved, and if so, whether this is because the original study requires scientific verification or was flawed or inadequate in some way which would invalidate its conclusions
  - (e) What measures are to be, or have been, taken to ensure that the procedures for the obtaining of animals for manipulation are such that they ensure the welfare and humane treatment of the animals
  - (f) That suitably qualified and experienced persons will be engaged in undertaking, supervising and be responsible for manipulation and selection of animals, and that their care and disposal have been and will be safeguarded in accordance with the provisions of this Code

- (g) That every care has been taken to ensure the following:
  - that housing, feeding and general care of the animals involved is adequate to meet the needs of such animals
  - that the housing and nutrition of experimental animals has been supervised by a veterinary surgeon (or by a person appropriately qualified in animal hygiene and husbandry, supported by a veterinarian where necessary)
  - that the collection and transport of the animals involved has been or will be carried out in such a way as to cause minimum distress
  - that appropriate arrangements will be made for the final disposal of animals either to nonexperimental locations (such as farms in the case of large animals), or by euthanasia. Dead animals must be disposed of in an acceptable manner.

Detailed guidance on these issues can be obtained from the National Animal Ethics Advisory Committee's Good Practice Guide for the Use of Animals in Research Testing and Teaching.

- (h) What measures have been or are to be taken to minimise any pain or distress caused to live animals manipulated, including the abandonment of manipulation at any stage, and the immediate humane destruction of animals where pain and distress cannot be held within reasonable levels. This shall include:
  - consideration of the selection of techniques, which while achieving the desired result, will impose the least possible stress and pain on the animal
  - ensuring that the persons carrying out the manipulation are adequately trained in the requisite techniques; and the use of euthanasia and analgesia wherever necessary, the indications for such use being those accepted in good veterinary or laboratory animal practice
  - ensuring that animals are not subjected to more procedures than are necessary to achieve the objective of the experiment or teaching exercise
  - the termination and, if necessary, abandonment of studies which, if continued, would lead to an unacceptable level of suffering to the animals.

### 9.3 The Committee may:

- approve an application
- approve an application in principle subject to minor or technical modifications
- decline to approve an application unless it is modified
- decline to approve an application.
- 9.4 No approval may be for a period of more than three (3) years.
- 9.5 Every such decision must be minuted, and must be communicated in writing to the principal applicant.
- 9.6 The Committee may in like manner approve or decline any variation of an application, or the extension of the term, and in so doing must take into account such of the matters set out in section 9.2 of this Code.
- 9.7 Subject to any other legal or statutory requirements, members of the Committee must hold in confidence any information coming into their possession as members of the Committee; this provision does not prevent disclosure to the Director-General of the Ministry for Primary Industries or other proper authority of any unethical or unlawful act, omission or concern relating to animal welfare.
- 9.8 Possible conflict of interest by members of the Committee must be declared and the Committee may decide on the appropriate way to manage it.
- 9.9 The Committee has power to inspect any relevant animals, their accommodation and any records in relation to any research, testing or teaching carried out upon them, or proposed to be carried out, at any time in order to satisfy themselves that the provisions of the Code are being properly carried out. Between meetings, this power may be exercised by the Chairperson or his or her nominee together with one other member of the Committee appointed under sections 8.2 (d), (e) or (f) of the Code.
- 9.10 Inspections of all animal facilities and all projects that have a Grade of Manipulation of 'D' or 'E' will be undertaken annually.
- 9.11 Projects that have a Grade of Manipulation of 'A', 'B' or 'C' will be inspected whenever possible during the annual inspection of all animal facilities.

- 9.12 At the final Committee meeting of each year an assessment exercise must be held to determine whether there has been sufficient monitoring of animals throughout the year and whether these activities have been recorded in an appropriate way.
- 9.13 The Committee may direct that any procedure, whether or not approved, be stopped or modified on ethical grounds, and that the animals involved be either euthanised or otherwise properly cared for. Between meetings this power may also be exercised by the Chairperson and one other member of the committee as stated in section 9.9 of this Code.
- 9.14 The Committee must investigate any suspected non-compliance with this Code, and must report to the Vice-Chancellor any significant non-compliance.
- 9.15 The Committee may seek expert opinion on any issue being considered.
- 9.16 The Committee must report annually to the Vice-Chancellor on its activities, and may at any time report to the Vice-Chancellor on any matter pertaining to the welfare of animals involved in manipulation or to the operation of the Code.
- 9.17 Complaints on the part of Committee members, staff members, students, applicants, work associates, or the public should first be drawn to the attention of the Chairperson of the Committee. Further action would involve the Committee, a subcommittee including members from sections 8.2 (d), (e) or (f) of this Code and if necessary a report to the Vice-Chancellor. If the matter cannot be resolved within the Committee, it shall be reported to the Vice-Chancellor. A complaint made with regard to the Chairperson should be reported directly to the Vice-Chancellor.
- 9.18 Requests by outside persons or outside organisations for permission to operate under this Code will be agreed only if the expertise of the Committee is appropriate for the supervision of such persons or organisations and if arrangements can be made to monitor the activities of the applicants. The standard application processes and protocols for approval will apply. The Ministry for Primary Industries will be notified of any arrangements.
- 9.19 The Committee will develop standard operating procedures for either animal husbandry practices or routine procedures that relate to the manipulation of animals in research, testing and teaching. These standard operating procedures will be submitted to the Committee for approval as they are developed.

## 10. RESPONSIBILITIES OF THE UNIVERSITY OF WAIKATO

- 10.1 The University of Waikato will not conduct, or permit any staff member or students to conduct on its behalf, whether on the University of Waikato's premises or elsewhere, any research, testing or teaching involving the manipulation of any live animal, unless that research, testing or teaching is carried out in accordance with this Code.
- 10.2 The University of Waikato will bring every such application to the attention of the Committee for its prior approval in sufficient time to enable adequate consideration.
- 10.3 All Acts of Parliament, Regulations or Bylaws pertaining to the obtaining, holding, possession, care and treatment of animals are to be complied with.
- 10.4 Every application must specifically refer to any of the following matters that are relevant to the application:
  - (a) Whether any alternative to the manipulation or use involving reduction, refinement or replacement, has been considered, and is reasonably practicable. If so, why such alternative is not being adopted
  - (b) In what respect the work proposed is likely to result in the extension of the body of knowledge relevant to the health and welfare of humans or animals, the productivity of animals, or the protection of the environment
  - (c) In the case of any educational institution, that the manipulation or use is required as part of the teaching of that institution's curriculum
  - (d) What factors have been taken into account in the choice of animal species, and the weighting given to such factors. Where standard works of reference have been relied on, these should be identified; endangered or threatened species should not be used unless the findings are expected to assist the survival of that species

- (e) The decision as to the number of animals involved, to ensure that it should be the minimum necessary to provide a scientifically interpretable result, consistent with the level of accuracy required.
  - (i) Consideration must be given to:
    - the design of the study
    - the level of accuracy necessary in the results
    - the possible confounding effects of animal variation
    - the need for statistical validity.
  - (ii) In general, duplication of experiments involving live animals should only be contemplated when it is considered that the original study requires scientific verification or was flawed or inadequate in some way which would invalidate its conclusions.
- (f) The source from which the animals are to be obtained, their movement and transportation and measures to ensure their welfare and humane treatment
- (g) The responsibilities of the staff members or students undertaking, supervising and responsible for manipulation and selection of animals, and their care and disposal
- (h) The measures to be taken to ensure the general health and welfare of animals before, during and after manipulation; including the adequacy and cleanliness of housing, caging and equipment; the provision of food and water; prevention of over-crowding and prevention and control of disease
- (i) The measures to be taken to minimise pain or distress; including abandonment of any manipulation and the humane destruction of animals where pain or distress cannot be held within reasonable levels
- (j) Any other aspects of the proposal which the applicant considers ought to be brought to the attention of the Committee.
- 10.5 The University of Waikato will in all respects comply with Section 4 of the Animal Welfare (Records and Statistics) Regulations 1999 which relates to the keeping of sufficient records and the supply of statistics and other data related to the use of animals for research, testing and teaching to the Director-General of the Ministry for Primary Industries. Records of approved protocols will be kept for 20 years. Records of all other business will be kept for 10 years.
- 10.6 Every application must clearly identify the person primarily involved in carrying it out and those responsible for the manipulations, and must be signed by them. The primary applicant is responsible for ensuring that all those involved in the manipulation and care of animals are aware of their obligations under this Code.
- 10.7 In addition to containing an appropriate scientific and technical justification, and description of procedures sufficient to enable the Committee to have an adequate understanding of the application, and addressing any other matters referred to in sections 10.4 and 10.6 of this Code, every application must be accompanied by an explanation in non-technical language fully describing the purposes and anticipated benefits of the work.
- 10.8 The University of Waikato acknowledges its obligation to comply under this Code and with any decision of or advice by the Committee.
- 10.9 Upon receiving from the Committee a report as to non-compliance with this Code, the Vice-Chancellor shall immediately consider the report and take appropriate action thereon, which may include in-house disciplinary action, and/or reference of the report to the Ministry for Primary Industries with a view to a prosecution.
- 10.10 The University of Waikato indemnifies each member of the Committee against any claim whatsoever arising out of any act done or omission made in good faith in pursuance, or purported pursuance of this Code.

## 11. STATISTICS

- 11.1 It is a requirement of the Animal Welfare (Records and Statistics) Regulations 1999 that statistics of animal usage in research, testing and teaching be kept and made available to the Director General of the Ministry for Primary Industries annually and on request.
- 11.2 To facilitate this requirement, each person responsible for a protocol or their nominee must keep a diary or other record of the number of animals used, their source, the procedures they are being or were used for and their ultimate fate when finished with. If the Grade of Manipulation experienced by the animals differs from what was proposed when the project was approved (whether greater or lesser) this must be recorded and reported back to the Committee. This must be kept fully up to date and may be inspected or requested at any time.

- 11.3 The person responsible for a protocol must initiate the Animal Use Statistics Application/Final Return Form and submit this with their application. This form must be completed when the experiments have finished and returned to the Secretary of the Committee.
- 11.4 Those outside persons or outside organisations using this Code must keep a record of all animals manipulated and make a return of these statistics to Ministry for Primary Industries annually.

## **DECLARATION**

I, the Vice-Chancellor of the University of Waikato accept this Code of Ethical Conduct on behalf of the University of Waikato situated at Hillcrest Road and accept the responsibility for ensuring that the provisions contained within this Code are complied with.

Professor Alister Jones Vice-Chancellor (Acting) The University of Waikato Private Bag 3105 Hamilton, 3240

> Animal Ethics Committee The University of Waikato Research Office Private Bag 3105 Hamilton

Date: 26 November 2014