Training framework

Chief Investigator responsibilities

In line with *The NHMRC Australian code for the care and use of animals for scientific purposes (8th Edition 2013)*, it is ultimately the responsibility of the Chief Investigator (CI) to ensure that individuals involved in an approved research or teaching activity involving animals are competent when performing procedures, including the care and assessment of those animals.

Prior to submitting an animal ethics application, the CI must identify the competency level and training needs of any animal users and develop a suitable training plan as necessary. Any additional animals and procedures required for training need to be included in the application. If the CI does not deliver the training, they must provide oversight and ensure any training plan provides the skills required, is completed and that the trainee has achieved competency. The CI must ensure suitable resources and time are available for training.

The CI is free to demonstrate competency of individuals in any way they deem appropriate, but must unequivocally establish, through either training or prior experience, that a person can perform a procedure in a manner that is in accordance with accepted practice, is timely, maximises opportunity for the procedure to be successful and minimises the welfare impact.

> ➤ The CI is ultimately responsible for ensuring animal users involved in an approved animal research or teaching activity are trained and competent.
> ➤ The CI can demonstrate competency in a manner they deem to be appropriate, including prior experience, but competency must be unequivocal.
> ➤ The CI must ensure that there are suitable resources and time available for training and that any training animals and procedures are part of an approved animal ethics application.

Animal user responsibilities

It is the responsibility of the animal user to ensure that their knowledge is up-to-date, that they are aware of current SOP's and best practice and that they are performing any procedures in accordance with what is approved in the animal ethics application.

It is the responsibility of all animal users to inform the CI and seek further education, training, supervision or assistance if they feel they are not competent to perform a procedure, or if it is identified as such.

It is the responsibility of any animal user who is undergoing training to actively participate in the training process and to complete any non-animal training (i.e. online training, SOP familiarisation, practicing skills on non-animal models etc.) in a timely manner before live animal training occurs.

Who can provide training?

Anyone with an appropriate level of skill, knowledge and experience can train another animal user in a procedure. The CI must be able to unequivocally demonstrate the competency and appropriateness of the trainer. The trainer must be someone named on the animal ethics application and using animals in accordance with the ethics approval or acting under a separate valid animal ethics training approval.

Where possible, training should be provided by a senior researcher, experienced research assistant, experienced animal technician, veterinarian or other person with a wide set of appropriate skills and experiences in animal procedures and care. Competent post-graduate students cannot train another individual without adequate oversight by a senior researcher.

Animal based training can occur in conjunction with experimental procedures where appropriate. An animal user named in an ethics application, who is not yet considered competent in a procedure, can perform an approved experimental procedure if they are adequately supervised as part of training to gain competency in the procedure (i.e. as an assistant).

The responsibility of the trainer

The trainer must ensure they are teaching to accepted practice and that their knowledge is up-to-date. The techniques being taught must be consistent with the procedures approved in the animal ethics application and relevant institutional SOP's. The trainer must continue to provide assistance and supervision to an animal user until they are competent.

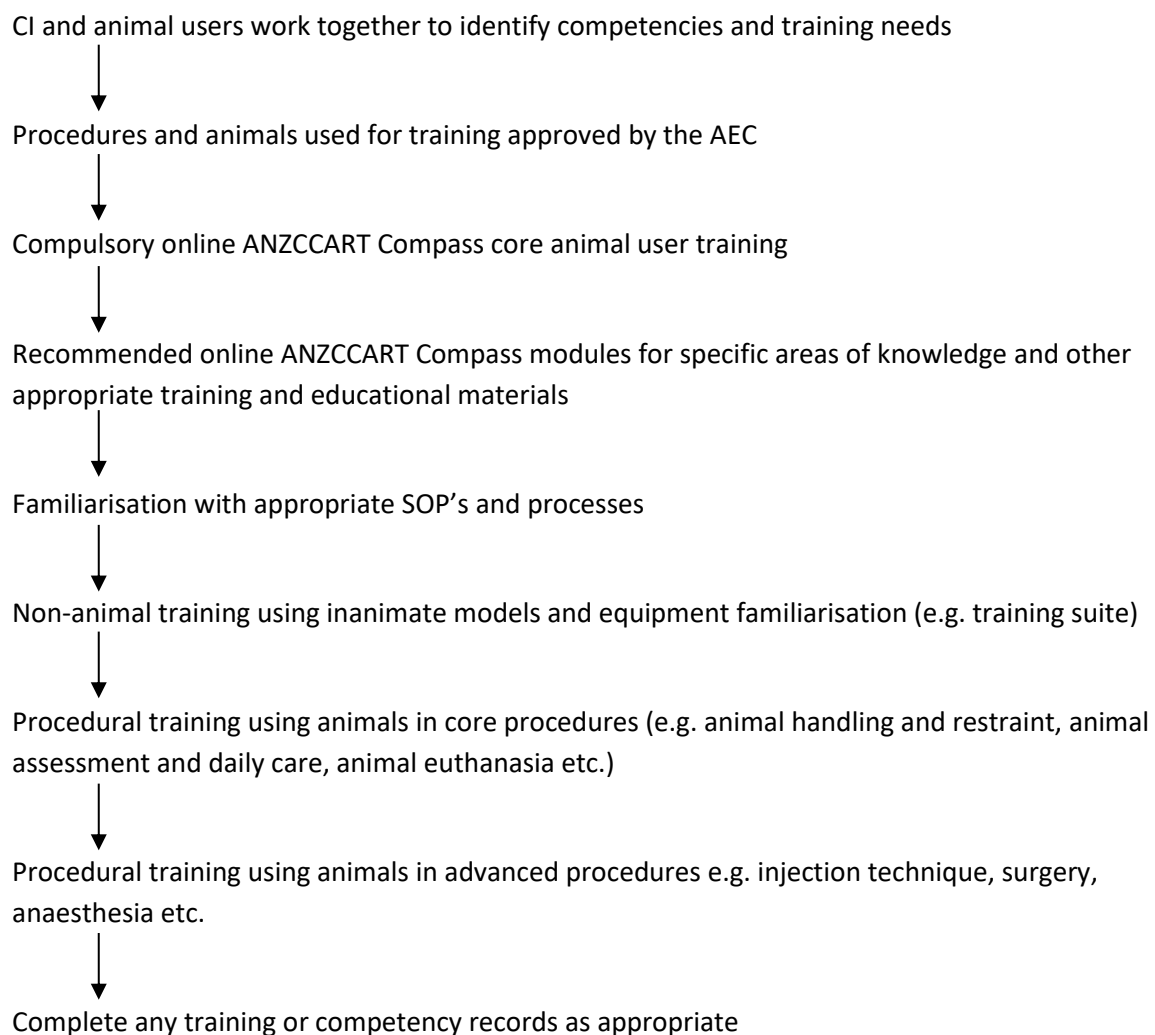**What needs to be covered when training an animal user?**

When providing procedural training to an animal user, there is a wide base of knowledge that must be taught, including (but not limited to):

- Relevant theory including any mandated or appropriate online training
- Development of skills on non-animal models
- Equipment familiarisation
- Relevant local and institutional SOP's
- Personal safety
- Biosecurity and cleanliness
- Reporting lines for animal welfare concerns and equipment issues
- Set-up and provision of equipment and consumables
- Tidying and replacing consumables after activities
- Record keeping
- Basic animal husbandry and care
- Animal monitoring and assessment for disease and compromise
- Creation of a low stress environment
- Specific procedural skills

> Non-animal training should be completed before live animal training occurs. It is the responsibility of the trainee to ensure this occurs.

Overview of the training process

To minimise the welfare impact of training on animals and help ensure personal safety, non-animal training should be undertaken before live animal training. In order to monitor and care for animals unsupervised or perform advanced procedures, an animal user must first be able to perform basic or core procedures, including assessing an animal and its environment, handling and restraint, moving an animal between two locations and animal euthanasia. Therefore training in these procedures should occur first.

Recommended timeline:

CI and animal users work together to identify competencies and training needs

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Procedures and animals used for training approved by the AEC

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Compulsory online ANZCCART Compass core animal user training

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Recommended online ANZCCART Compass modules for specific areas of knowledge and other appropriate training and educational materials

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Familiarisation with appropriate SOP's and processes

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Non-animal training using inanimate models and equipment familiarisation (e.g. training suite)

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Procedural training using animals in core procedures (e.g. animal handling and restraint, animal assessment and daily care, animal euthanasia etc.)

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Procedural training using animals in advanced procedures e.g. injection technique, surgery, anaesthesia etc.

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Complete any training or competency records as appropriate

What about experienced animal users / researchers transferring to The University of Adelaide?

It is the responsibility of the CI to be able to demonstrate that they are competent in any animal procedures they will perform. The experienced animal user will need to complete any mandated (ANZCCART Compass core online animal ethics training, etc.) and institution specific training (SOP's, reporting lines etc.) at a minimum.

One method for demonstrating that an experienced animal user is competent in a procedure is to ask LAS (in LAS facilities) or the University Veterinarians to meet with, and view, the experienced

animal user when they are performing a procedure and provide a signed competency assessment certificate.

Refresher training

There is no mandated period of time during which refresher training must occur (apart from the ANZCCART Compass core online animal ethics training). Refresher training is recommended if there has been a substantial period of time since a procedure was last performed by an animal user or if there is a realistic expectation that best practice or SOP's have changed since the procedure was last performed.

Resources for support of CI's and investigators in training and demonstration of competency

LAS Competency training

LAS offer competency assessment-based structured training in core skills for laboratory animal users. Core skills include handling, humane killing, injection, blood collection and anaesthetic techniques. LAS training has high demand and limited places available. LAS are not responsible for ensuring that the training they offer is available or completed before the start of an experiment. It is recommended that the CI and animal user discuss training needs as early as practicable with LAS and seek alternative options if LAS training cannot be delivered in a timely manner for experimental or teaching needs.

Due to the high demand for training by LAS, and limited resources, animal users are typically trained to a stage where they can reasonably and safely (for the animal and person) perform a procedure. In some cases, the animal user may need further practice to become truly adept, and as such ongoing support and supervision by the CI and other members of the research team is recommended until the animal user and CI are satisfied they are competent and ready for unsupervised procedural work.

As part of LAS structured training, LAS can provide training animals for out-of-session practice to animal users once they have completed initial training to the satisfaction of LAS. In this situation, it is the responsibility of the trainee to arrange access to the animals with LAS.

University Veterinarian training and competency assessment

Training needs can be discussed with the University Veterinarians who may be able to provide direct training and support for a procedure. They will also work with the CI or animal user to help identify training assistance or develop a suitable training plan.

The University Veterinarians are available and very willing to view animal users perform procedures to assist in technique refinement and competency demonstration. Where animal users are taught advanced procedures (for example surgery) by non-veterinarians, it is recommended that the CI and trainee ask the University Veterinarians to view the trainee performing the procedure, once they have learnt the technique.

Online ANZCCART Compass training

ANZCCART provide compulsory online animal ethics training for all animal users in **Phase 1: Core mandated training for AEC members and animal users**. This training consists of seven core modules on various topics and an eighth core module which is an assessment and generates a certificate of completion.

ANZCCART also provide optional stand-alone online training modules on a variety of procedural topics in **Phase 2: Competency training and knowledge base**. These modules include a certificate of completion which can be used to help demonstrate competency. Animal users should complete the modules relevant to their activities, prior to undergoing practical animal training. Topics include:

Aseptic technique.
Minimally invasive techniques without anaesthesia, including wildlife trapping.
Anaesthesia for minor procedures.
Anaesthesia for major procedures.
Surgical principals, methods and materials.
Performing a systematic post-mortem examination.
Establishing and managing a rodent breeding colony.
Maximising welfare and behavioural assessment in research animals.

Training suite

Basic practical skills should initially be learnt using non-animal models before developing those skills on animals. Basic practical skills include handling concepts, needle and syringe handling, injection techniques, suture skills, instrument dexterity, aseptic technique, anaesthetic machine set-up and any other practical skill that can be practised without using an animal.

Laboratory Animal Services Training Suite is available for unsupervised training however bookings are essential via las_training@adelaide.edu.au. The training suite consists of a range of non-animal models and stations with accompanying information and QRS scannable videos to guide trainees in skills development.

Competency Assessment Certificates and Skills Logs.

The competency assessment certificate at the end of the document provides a general guide for the scope of training required for a skill or procedure. While the training requirements for any particular procedure and animal user will vary, it is important to consider not only the procedural steps required, but the wider body of knowledge including pre-requisites, safety and biosecurity, animal welfare, professionalism and application of the 3R's (replacement, reduction and refinement).

One method for demonstrating competency is to provide a signed competency assessment certificate for each procedure an animal user develops competency in.

Another method is to maintain a skills log, which is signed and dated by the animal user, trainer and where appropriate the CI, recording procedures the animal user has been trained in and any non-animal training that has been performed.

All Species Procedural Competency Assessment and Certificate.

Candidate name: Species:
Assessed by: Assessment date:
Procedure(s):

<u>Note for assessors:</u> Only complete and sign this assessment form once trainee is competent in all aspects listed below, and can safely and correctly perform procedure without supervision or assistance.

Prerequisites:
- The trainee has completed appropriate online training, including;
  - ComPass Phase 1 'Core Mandated Training' (modules 1-7 plus module 8 'assessment')
  - ComPass Phase 2 modules as relevant
- The trainee has spent time developing skills on non-animal models and familiarising themselves with equipment
- The trainee can perform basic handling skills competently before they undertake other procedural training
- The trainee has been procedurally trained, using animals, for an appropriate length of time by an experienced researcher or technician

Safety and Biosecurity:
- Correct use of PPE and aware of potential hazards including zoonosis, allergies and the animals defence mechanisms
- Understands what biosecurity is and basic biosecurity principles
- Correct and safe use of equipment, including equipment for handling animals and antisepsis

Animal welfare:
- Empathetic, safe handling
- All procedures performed confidently and in a timely manner
- A low stress environment is created
- Attention to signs of distress, including breathing and mucosal colour during procedure / when restrained
- Trainee can correctly describe major symptoms that indicate an animal is possibly distressed or unwell
  - E.g. coat condition, movement and posture, body condition, pain signs, etc.
- Knows who to report animal health and welfare concerns to and how to get assistance when concerned

Procedural
- Trainee is aware to plan procedural work for an appropriate time of the day where possible, for example:
  - Surgery performed in the morning so recovery can be monitored easily throughout day
  - Stock not left in uncovered yards during middle of hot day
- Set-up is completed before any animal interaction (equipment, materials, records etc.)
- Equipment, including restraint devices, syringes and needles etc. assembled, checked and operated correctly
- A free run / distance examination is performed before the animal is handled
- Where appropriate, the trainee can competently enter animal housing and transfer animals between two locations
  - Co-housed and herd animals: trainee is aware of group dynamics and flight zones
- Trainee can competently restrain animals as needed
  - Without excessive force
  - The restraint time is the minimum required for a procedure
- Trainee aware of and can use any additional methods that facilitate handling and procedural work
- Trainee performs procedure in a competent and confident manner without hesitation
- Trainee monitors animals for an appropriate length of time after procedural work is completed

Professionalism:
- Workspace left clean and tidy
- Knows and communicates own limits
- Completes records as necessary

3Rs:
- Demonstrates understanding to actively seek to minimise welfare impact of procedural work

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I assess the candidate to be competent and able to perform the above named procedure(s):
Assessor signature and position: