



Australian Government

ACMATE506 Assist to collect and transfer embryos of mice

Release: 2

ACMATE506 Assist to collect and transfer embryos of mice

Modification History

Release	Comments
Release 2	This version released with ACM Animal Care and Management Training Package Version 3.0.
Release 1	This version released with ACM Animal Care and Management Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to assist in the collection, handling, storage and transfer of mouse embryos.

The unit applies to individuals who work as animal technicians in research and teaching facilities that require laboratory/research mice to be re-derived by embryo transfer for scientific purposes.

All work practices must be undertaken in accordance with legislative requirements, the current Australian Code for the Care and Use of Animals for Scientific Purposes (the Code), the organisation's standard operating procedures, and protocols, policies and procedures approved by the organisation's Animal Ethics Committee (AEC). Users are advised to check legislative requirements for their jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Animal Technology (ATE)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for procedures and maintain documentation	1.1 Comply with organisational protocols, policies and procedures as set down by the AEC and relevant legislative requirements, including work health and safety, at all times

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify regulatory and project documentation requirements 1.3 Verify project reproductive and breeding program objectives against instructions 1.4 Maintain and update records according to organisational policies and procedures
2. Assist to vasectomise males	2.1 Prepare equipment and work areas 2.2 Select male mice of appropriate age for vasectomy and assess for health status and suitability for surgery 2.3 Prepare and verify contingency plans to respond to potential emergencies during and after surgery 2.4 Prepare anaesthetics, analgesics and equipment according to instructions or project specifications 2.5 Anaesthetise animal under supervision and monitor to ensure surgical anaesthesia is achieved and maintained 2.6 Prepare animal for aseptic surgery 2.7 Conduct vasectomy and close wounds under supervision 2.8 Monitor animal during recovery 2.9 Confirm success of vasectomy
3. Assist to collect embryos	3.1 Monitor females of appropriate age for stages of oestrus cycle 3.2 Identify suitable females and assess health status 3.3 Prepare female for super-ovulation according to organisational procedure 3.4 Mate female with an entire male 3.5 Confirm presence or absence of vaginal plugs 3.6 Collect embryos under supervision from the reproductive tract of super-ovulated and mated donor females
4. Manage and manipulate embryos	4.1 Hold embryos in a suitable receptacle under optimal temperature and atmospheric conditions to ensure viability 4.2 Grade and manipulate embryos 4.3 Wash embryos in an aseptic manner for the purpose of re-derivation transfer 4.4 Store embryos before transfer

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.5 Monitor procedures, materials, equipment and techniques for quality
5. Assist to transfer embryos	5.1 Mate females with vasectomised males and check for the presence of vaginal plugs 5.2 Prepare embryos for transfer 5.3 Under supervision, anaesthetise females for embryo transfer and monitor to ensure surgical anaesthesia is achieved and maintained 5.4 Transfer embryos under supervision
6. Monitor success of embryo transfer	6.1 Monitor females for pregnancy using appropriate technique 6.2 Monitor and record number of pups born to embryos transferred per recipient to determine success of program 6.3 Assess health status of pups and recipient after birth and weaning

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Synthesise relevant ideas from several sources, including identifying work requirements from regulatory and project documentation
Writing	Note observations during monitoring of animals, including health status of pups and recipient
Oral communication	Clarify and discuss instructions about work procedures

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

ACMATE506 Assist to collect and transfer embryos of mice Release 2	ACMATE506 Assist to collect and transfer embryos of mice Release 1	Minor changes to performance criteria, foundation skills and knowledge evidence for clarity	Equivalent unit
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Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103>