

 THE UNIVERSITY OF QUEENSLAND AUSTRALIA CREATE CHANGE	UQ Animal Ethics Committee - Standard Operating Procedure LAB_091 Blood Sampling of Imported Rodents for Biosecurity Release Institutional author: UQ Biological Resources AEC Reviewed & Approved: 14/10/2026 SOP Expiry: 14/10/2029	Version #2.1 Page 1 of 5
---	--	--

LAB_091 Blood Sampling of Imported Rodents for Biosecurity Release (Expiry: October 2029)

I. OBJECTIVE

To describe the standardised process across UQBR for the importation of laboratory animals for approved research and the implementation of health screening requirements in accordance with relevant Department of Primary Industries (formerly Department of Agriculture, Fisheries and Forestry) import permit conditions, to facilitate biosecurity clearance of internationally imported animals.

Note

- The use of (*) indicates this statement is dependent on the facility procedures
- The use of (**) indicates this statement is dependent on AEC Approvals

II. DEFINITIONS

Approved Arrangement (AA) - In the Australian biosecurity context, an **Approved Arrangement (AA)** is a formal agreement approved under the Biosecurity Act 2015 that allows a business or individual to carry out specified biosecurity activities and manage biosecurity risks associated with imported goods at their own premises, using their own staff and facilities, subject to government requirements and audits.

Importing - The process of bringing live animals used for scientific research, testing, education, or breeding into a country from another country, in accordance with applicable biosecurity, animal health, welfare, and import regulations.

III. COMMENTS/RECOMENDATIONS

- **Australian Biosecurity Requirements** - Laboratory rodents that are AEC approved to be imported into Australia for approved research must be managed in accordance with the Department of Primary Industries (DPI) Import Permit conditions.
This includes but is not limited to:
 - Holding within a UQBR-certified Approved Arrangement (AA) facility under biosecurity control until all import permit conditions have been met.
 - Collection and testing of blood samples for Hantavirus at a specified sample size.
- Immunocompromised strains cannot be used for Hantavirus testing and sentinel rodents are used in their place- see 'Using Sentinel Rodents for Hantavirus Testing' below, for further information.
- The following documents must be included with all ethics applications involving the importation of rodents from overseas into Australia - LAB_003 Transportation of Laboratory Rodents

Conditions:

- Investigators named in an animal ethics application, relative to this SOP, must be competent to implement the SOP
- Any variation to this SOP must be described in the relevant animal ethics application
- If this SOP has not been reviewed and approved by a UQ AEC within the last three years it is no longer valid and cannot be used in animal ethics applications until reapproved (see "AEC Reviewed/Approved" date in this document's header).

 THE UNIVERSITY OF QUEENSLAND AUSTRALIA CREATE CHANGE	UQ Animal Ethics Committee - Standard Operating Procedure LAB_091 Blood Sampling of Imported Rodents for Biosecurity Release Institutional author: UQ Biological Resources AEC Reviewed & Approved: 14/10/2026 SOP Expiry: 14/10/2029	Version #2.1 Page 2 of 5
---	--	--

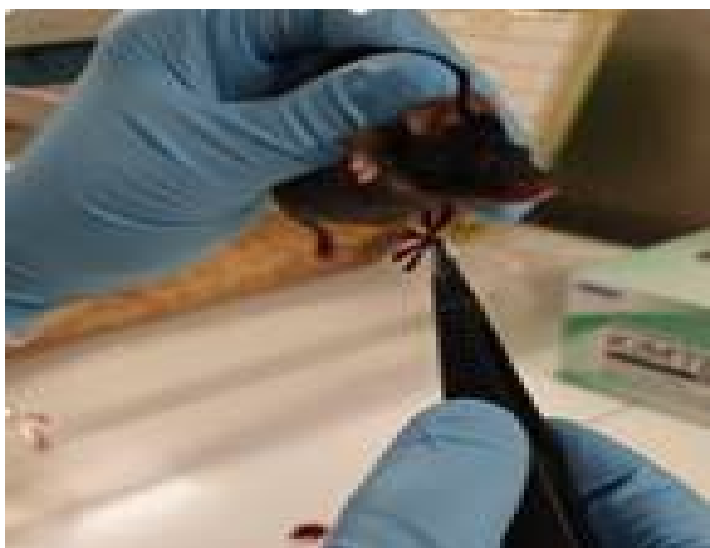
IV. EQUIPMENT

- PPE*
- Disinfectant*
- Sharps Container
- Syringe
- Needle
- Change station/Bio-safety cabinet*

V. PROCEDURE

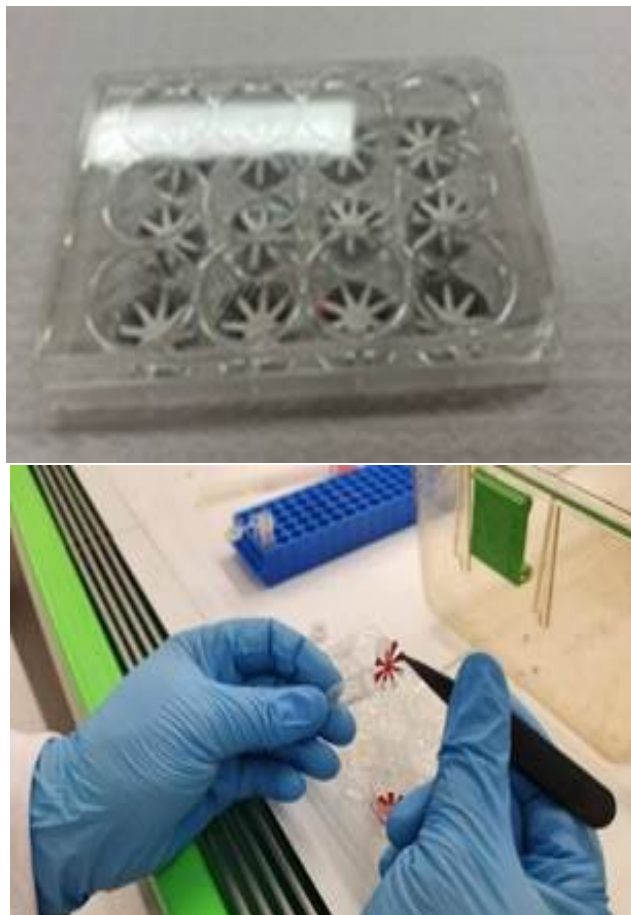
Blood Collection for Hantavirus Testing

1. Allow imported animals to acclimatise for at least one week post arrival.
2. Check the expiry dates of the consumable equipment – only use those within date.
3. Calculate the number of animals to be sampled referring to import conditions and the table in Appendix 1.
4. Prepare Hema form DBS (size 80) noting one Hema form spot per animal.
5. Perform blood collection using one of the methods below, noting that blood will need to drop onto the Hema form and cover the entire spot:
 - LAB_019 Blood Collection - Tail Bleed in Rats and Mice (Tail prick or Needle and Syringe method)
 - LAB_020 Blood Collection – Facial Bleed (Sub-Mandibular) in Mice
 - LAB_036 Blood Collection – Saphenous Vein in Mice



Conditions:

- Investigators named in an animal ethics application, relative to this SOP, must be competent to implement the SOP
- Any variation to this SOP must be described in the relevant animal ethics application
- If this SOP has not been reviewed and approved by a UQ AEC within the last three years it is no longer valid and cannot be used in animal ethics applications until reapproved (see "AEC Reviewed/Approved" date in this document's header).



6. Complete the submission and packing of blood samples by following *UQBR-WIN-082 Submitting and Packing Samples to Compath and Cerebrus*.
7. Animals will remain housed within the AA room until:
 - Subsequent health screening is performed for local operational controls and/or
 - Final Release Direction from DPI has been received.

Using Sentinel Rodents for Hantavirus Testing

When imported animals are an immunocompromised strain, they cannot be used for Hantavirus serological screening because deficiencies in their immune system may prevent the development of a measurable antibody response. Consequently, serological test results may not accurately reflect the animals' Hantavirus status. Where imported animals are immunocompromised, immunocompetent sentinel animals must be used to satisfy the Hantavirus testing requirements specified in the relevant DPI Import Permit and support biosecurity clearance.

Conditions:

- Investigators named in an animal ethics application, relative to this SOP, must be competent to implement the SOP
- Any variation to this SOP must be described in the relevant animal ethics application
- If this SOP has not been reviewed and approved by a UQ AEC within the last three years it is no longer valid and cannot be used in animal ethics applications until reapproved (see "AEC Reviewed/Approved" date in this document's header).

1. Obtain animals suitable for sentinel use - defined by the below points:
 - Immune competent
 - Sentinels should be 8–12 weeks of age at placement to ensure immunological maturity and adequate exposure prior to hantavirus serological testing.
 - The health status is suitable for subsequent health screening
 - Investigate if cull request animals are available to be used as sentinels rather than ordering in animals specifically for this purpose. Note however that a cull request cannot be modified or the planned cull date extended without ethics approval. If there are no suitable cull request animals, order animals from a commercial supplier.
 - Additional numbers may be considered for incidental losses during the exposure period to ensure biosecurity clearance within required timeframes. The number of sentinels required (sample size) must be determined in accordance with current BICON (Biosecurity Import Conditions System) import conditions, which apply the requirement to achieve a 99% confidence of detecting disease at 25% prevalence- ref. Appendix 1.
2. Place sentinel animals with the imported animals in the same cage using a perforated divider to allow contact between groups.
3. Maintain co-housing for a minimum of 45 days and no more than 120 days (as per DPI permit) prior to Hantavirus testing to meet import permit requirements.
4. As soon as possible after day 45 of co-housing, perform the blood sampling procedure for Hantavirus testing as described above.



Photos showing both a close-up view of the Perspex divider and a wider view of the overall cage setup.

Conditions:

- Investigators named in an animal ethics application, relative to this SOP, must be competent to implement the SOP
- Any variation to this SOP must be described in the relevant animal ethics application
- If this SOP has not been reviewed and approved by a UQ AEC within the last three years it is no longer valid and cannot be used in animal ethics applications until reapproved (see "AEC Reviewed/Approved" date in this document's header).

VI. Appendix 1.

Permit: 0010837694 Page 13 of 13

Appendix 3: Table: Sample size required for detecting disease with 99% confidence at 25% prevalence

Minimum number of animals required to give a 99% confidence of detecting disease if it is present at 25% prevalence.

Population size	Number of animals to be sampled to detect 25% prevalence
10	10
15	10
20	11
40	13
60	14
80	15
100	15
150	16
200	16
∞	16

Appendix 1: Sample size required for detecting disease with 99% confidence at 25% prevalence.

Source: Department of Agriculture Fisheries and Forestry (now Department of Primary Industries) Permit to import conditionally non-prohibited goods—import of Laboratory animals.

Version #	Reviewing AEC	AEC Review Date	Outcome
#1.0	Unknown	13 April 2022	Approved to 13/04/2025
#2.0	Molecular Biosciences AEC, Laboratory Biomedicine AEC, Anatomical Biosciences AEC, Health Sciences AEC	September 2026	Deferred Approval
#2.1	Anatomical Biosciences AEC	14 October 2026	Approved (with minor administrative changes) to 14/10/2029

Conditions:

- Investigators named in an animal ethics application, relative to this SOP, must be competent to implement the SOP
- Any variation to this SOP must be described in the relevant animal ethics application
- If this SOP has not been reviewed and approved by a UQ AEC within the last three years it is no longer valid and cannot be used in animal ethics applications until reapproved (see "AEC Reviewed/Approved" date in this document's header).