

**Animal Holding and Use within Extra-Vivarial Spaces**

## Purpose / Scope

This policy outlines the requirements for holding and/or use of live animals outside of a Laboratory Animal Facility ('Facility'), hereto referred to as an Extra-Vivarial Space (EVS).

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## Policy

Unless approved by the Animal Care Committee (ACC), animal holding and use must take place within a Laboratory Animal Facility (Facility).

Work with animals outside of a Facility must be avoided wherever possible. Exemptions to this policy require strong justification and prior approval by the Animal Care Committee (ACC).

## Exemptions

The ACC will consider proposals for animal holding or use outside of a Facility by evaluating the following criteria:

- *Justification:* There must be clear and compelling reasons for why a Facility cannot support the proposed work.
- *Suitability:* The proposed area must be assessed and approved (see requirements below) by the ACC for the specific procedures outlined within the associated Animal Use Protocol(s).
- *Supervision:* The proposed area must be assigned a supervisor (if not the AUP holder) with responsibility for maintenance of the area to ensure alignment with all applicable standards.
- *Oversight:* There must be sufficient resources (ACC and/or veterinary) to provide oversight to the proposed area.
- *Academic approval:* The proposed area must be approved for use by the associated institutional leader.

Prior to use and based on the assessment of the proposed area, the ACC must decide if the area is suitable for use as outlined in the AUP. Conditions may apply before and/or after approval.

- Following approval, the area will be subject to regular inspections by the ACC or their delegates and veterinary staff.

**Animal Holding and Use within Extra-Vivarium Spaces****Requirements for Approval of Extra Vivarium Spaces**

Spaces must:

- Meet or exceed CCAC guidelines and OMAFRA regulations for animal holding or use with respect to infrastructure, maintenance and environmental parameters (i.e. sanitation, appropriate enclosures, environmental enrichment, lighting, noise control, air quality, humidity and temperature);
- Be secure and accessible at all times to only authorized research staff, Facility staff, veterinarians, and the ACC;
- Be in close proximity to the Facility in order to minimize the time that the animal spends in transport, and avoidance of public areas in route; and
- Mitigate/avoid exposure of others to potential allergens.

**Operational Requirements for Approved Extra Vivarium Spaces**

- Research staff must promptly contact animal care staff if an animal's health is compromised (e.g. sick or injured, showing signs of pain, distress or discomfort) or if anything unusual is noted about animal health, behaviour, or environmental conditions, as per the *Sick Animal Response Policy* (POL-009).
- Research staff must complete and maintain animal care and use records, as per the *Animal Care and Use Policy* (POL-003) as for those performed in a Facility (e.g. surgical records, monitoring templates) and maintain these records with the animals.
- For areas approved for holding, all animals must be monitored at least once a day, including weekends and holidays. Daily monitoring is to be recorded using logs maintained in the holding area, available for inspection for at least annually, as per the *Animal Husbandry Policy* (POL-010).
  - When necessary, daily monitoring may be coordinated between research and Facility staff. The roles and responsibilities of each party must be developed with and approved by the Facility supervisor/veterinary staff.
  - Qualified Facility staff must additionally monitor areas approved for holding (i.e. >12 hours) on a regular basis.

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- Monitoring must include a visual examination of:
  - All animals for appropriate health,
  - Food/water quality/supply, and
  - Life support/environmental systems for proper function (e.g. primary and secondary enclosure/tank environment).
- Daily monitoring logs must include the date, initials of the person performing the monitoring, and any other observations such as health issues, mortality, equipment issues, etc. as per the *Animal Care and Use Records Policy* (POL-003).

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## Rationale

Holding or use of animals within extra-vivarial spaces is strongly discouraged by Western University and our federal and provincial regulators. Work with animals outside of Facilities exposes Western and its researchers<sup>1</sup>:

- **Animal care and welfare:** Facilities are designed and built to meet regulatory standards for animal holding and use. Facilities are staffed with qualified personnel for provision of oversight, delivery of animal care, and assurance of animal welfare.
- **Human health and safety:** Allergy is likely the most common occupational hazard among those working with laboratory animals. Work with animals outside of Facilities is associated with risk of exposure of others to allergens, some of whom might not be aware they are at risk (students, custodial staff, members of the public, etc.). Limiting animal work involving the use of biological or chemical hazards to Facilities allows for application of appropriate containment measures and decreases the risk of exposing other people to such hazards.
- **Potential research confounds:** Transportation and holding in an unfamiliar environment is stressful for animals. To avoid the potentially confounding effects of stress on research, animal holding and use should be limited to Facilities whenever possible. Facilities are purpose-built for tight control of environmental parameters such as temperature, humidity, air quality, lighting and noise. Variability in environmental parameters introduces variability in data.

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<sup>1</sup> Animal transport outside of purpose-built facilities is considered to be “inefficient and increases risks with respect to security, biosafety, biosecurity, animal stress, laboratory animal allergies, and oversight of animal care and use.” CCAC’s Policy Statement for Senior Administrators Responsible for Animal Care and Use Programs (2008). Appendix VII – Animal Facilities. Retrieved on 4Feb2019 from [https://www.ccac.ca/Documents/Standards/Policies/Senior\\_administrators.pdf](https://www.ccac.ca/Documents/Standards/Policies/Senior_administrators.pdf)

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- Animal health and biosecurity issues: Facilities are maintained according to a specific health status for the colony. Transportation of animals, equipment and personnel to and from areas outside of these facilities can spread unwanted pathogens, which threaten ongoing research programs.
- Professional and emergency support: When animal work is performed in Facilities, technical and veterinary staff is available to assist researchers and ensure conformance to best practices and standard operating procedures. Timely assistance in case of emergencies is more challenging when procedures are conducted outside the Facility.
- *Secure containment*: Limiting animal-based work to Facilities allows for management of appropriate containment measures for handling of biological hazards, chemical hazards and genetically modified organisms to meet regulatory requirements as a condition to conducting research with these agents.

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## References

- Animals for Research Act, R.S.O. 1990, c. A.22, 24, 25
- Canadian Council on Animal Care.
  - Guidelines on animal laboratory facilities – characteristics, design and development (2003)
  - Guidelines on the care and use of fish in research, teaching and testing (2005)
  - Other species-specific guidelines
- Animal Care Committee Policies and Standard Operating Procedures
- University Senate’s MAPP 7.12 – The Animal Ethics and Care Program

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## Revision History

Version	Date	Description of Changes	Author
00	12-MAR-2020	New Policy	KB / EB / TR / LT