

POLICY NUMBER: A-005

TITLE: Animal Biosecurity Policy

1.0 PURPOSE

The purpose of this policy is to define requirements for an effective animal biosecurity plan, focusing specifically on mechanisms of fomite disease transmission through trafficking patterns at the VA Pittsburgh Healthcare System (VAPHS) Animal Research Facility (ARF). A fomite is defined as inanimate object capable of transmitting pathogens.

2.0 REVISION HISTORY

R&D Approval Date	Revision #	Change	Reference Section(s)	Effective Date
April 26, 2016	1.3	Correction to name of referenced policy.	Section 4.0	April 29, 2016
April 28, 2015	1.2	Clarification to title of policy; Minor modifications to wording	Section 4.0; Section 4.0 and 5.0	May 1, 2015
January 28, 2014	1.1	Minor modifications to wording	All sections	February 4, 2014
May 11, 2010	N/A	New Policy		May 12, 2010

3.0 SCOPE

This policy applies to all research personnel working with animals within the VAPHS ARF.

4.0 POLICY

Animal biosecurity is a way to protect the animals used in research by preventing the introduction or transmission of disease by infectious agents. If the biosecurity is breached, it can adversely impact the following:

- Animal population - specific pathogen free (SPF) populations, when applicable, should be maintained.
- Personnel – animals may be infected with zoonotic organisms which can cross the species barriers and infect humans.
- Research – excluded infectious agents and parasites (as defined in Policy #A-003 VAPHS Animal Research Facility Importation of Rodents from Non-Standard Commercial Facilities and Exportation of Rodents to Other Institutions) can create significant “variables” in research outcomes and may affect the biological functions of infected animals.

Biosecurity risks that pose a threat to the animal populations can vary upon the type and extent that they pose a threat and can be introduced in a variety of ways.

- a. Pathogens at VAPHS ARF: Administrative procedures that include following specific traffic patterns within the ARF and inter-facility quarantine/testing for animal transfers minimize the introduction and spread of pathogens in the facility. However, the possibility of such infectious disease exposure to excluded pathogens must always be considered a risk to uninfected colonies.
- b. Pathogens in shared research support areas: Access to diagnostic and testing equipment such as PET, MRI, NMR, etc., are limited and areas where this equipment is located are used in collaborative studies. Thus, the amount of traffic (animals and personnel) can cause cross contamination from these shared locations.
- c. Pathogens from other campuses and facilities: Several investigators work both at the VA and at other campuses/facilities. This cross traffic includes personnel entering and leaving different animal rooms, procedure rooms, facility corridors, and animal facilities. Investigators that perform animal research at both the VA and in other facilities should constantly be aware of the health status of the animals. Appropriate precautions should always be taken to ensure that investigators and their personnel do not spread pathogens to the collaborative animal facility.
- d. Pathogens from colonies of outside institutions that are imported to the VAPHS ARF: When an investigator imports animals from another institution, there is a risk of exposing the colonies to pathogens. Quarantine and testing of animals before they are introduced into the current populations as well as pre-screening of the health status and surveillance reports from the institution providing the animals (allowing for the ability to reject animals' capable of introducing disease) can help prevent the introduction of pathogens.
- e. Pathogens in vendor colonies: Animals from approved commercial vendors are assumed to be clean and do not require quarantine and testing prior to introduction to the existing colony. However, even though the vendor performs continuous monitoring of health status, uses protective housing, and institutes high management standards, a risk still exists. Defining approved commercial vendors for the VA and ongoing monitoring of their approved quarterly health reports is necessary.
- f. Pathogens in pets at home or wild animals: Pet and wild animals should be considered potential carriers of pathogens. Direct (pet) or indirect (fecal droppings from wild animals) contact carries a risk of introducing pathogens into the colonies. A pest monitoring/management plan can help mitigate this risk. Employees working directly with rodents should be counseled not to keep personal rodent pets at home.
- g. Transfer of animal within a facility: Room to room transfer of animals increases risk by possibly introducing a pathogen into a room that is pathogen-free. An emerging pathogen outbreak may not yet have been detected in the source animal's room at the time of the transfer.

5.0 REQUIREMENTS AND PROCEDURES

Despite a strict policy on animal importation and quarantine and careful management practices, animal colonies remain susceptible to the persistence of an outbreak. To reduce the risk of pathogens spread between facilities, personnel must adhere to the following requirements:

- a. Personnel that are in direct or indirect contact with animals should be aware of the health status of the animals located at the facility where they are held. Any knowledge of disease outbreaks in outside populations with which they interact should immediately be reported to the ARF Supervisor, attending veterinarians, and the VA IACUC.
- b. All personnel should adhere to the procedures that are currently in place for traffic patterns at each facility. This includes awareness of the order of rooms that are entered throughout the day (including animal rooms, labs, cage wash and cage storage). Also, the required protective garb must be changed as specified for each facility, facility corridor, animal room, procedure lab, or shared support area.
- c. Disinfection of all use areas and equipment that come in direct contact with animals or caging systems must be performed before and after use.
- d. Pathogen transmission via fomites can be prevented by having dedicated instruments and equipment for each use site.
- e. When personnel need to visit the VAPHS ARF as well as other animal facilities, a waiting period of 24 hours must be observed before leaving one facility and entering another. Also, personnel must take at least one shower and completely change street clothes within this 24 hour period.

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Gretchen L. Haas, PhD
Research and Development Committee Chair

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Steven H. Graham, MD, PhD
Associate Chief of Staff for Research and Development