


Institutional Animal Care & Use Committee		
Title: Transplantable Cell Lines in Rodents		
Policy#: IACP 017	Date in Effect: 05/13/11	
Rev #: no changes	Rev Date: 12-11-15	
Rev #: 01	Rev Date: 01-13-23	
In Effect <input checked="" type="checkbox"/> Rescinded <input type="checkbox"/>	Date Rescinded:	

A) RESPONSIBILITIES

In an effort to protect staff members and the rodent colony at UTSA, all biologicals (human and animal derived) must be pre-screened before introducing into rodents at UTSA. Test results must be reviewed by the University Veterinarian or designee.

B) BACKGROUND INFORMATION

When biological material is introduced into rodents, it is a potential source of contamination by adventitious pathogens. Between 15-30% of all cell lines are cross-contaminated with other cell lines or are misidentified (*Science, Feb. 2007*). The pathogen has the potential not only to infect individually inoculated animals but it may also spread throughout the rodent colony. Rodents are susceptible to a large variety of viral and bacterial agents. Commonly encountered pathogens include parvoviruses and corona viruses. Parvoviruses target rapidly dividing cells of the intestinal and lymphoid tissues, and are common in rodents, transplantable tumors and other biological materials. Mouse hepatitis virus (MHV) is a very commonly encountered corona virus that can replicate in numerous tissues including lymphoid organs and bone marrow. This virus may also be a common contaminant of transplantable cell lines. Numerous other viruses and bacteria may be prevalent in some facilities and many of these pathogens can cause significant immunologic alterations and in some cases they may also induce significant morbidity and mortality of rodents.

PCR-based tests are available for mouse and rat pathogen contamination of biological specimens. Collection of material must be performed aseptically. Cost varies with the lab and the panel requested. Panels are available for other species such as hamsters.

C) DEFINITIONS

- 1) Biological Material: Cell lines, transplantable tumors, serum, tissues, body fluids, antibody preparations or hybridoma lines.

D) PROCEDURES

- 1) When new biological (human or rodent) materials are prepared or imported for use in animals, they may be tested for adventitious agents through:
 - a) Charles River (<https://www.criver.com/products-services/research-models-services/animal-health-surveillance/cell-lineresearch-biologics-screening?region=3601>). .
 - b) RADIL (<https://www.idexbioanalytics.com/biological-testing>).
 - c) VRL (<http://www.vrlsat.com/biological-testing/cell-line-pathogen-screening/>).
- 2) Biological materials kept at UTSA must be tested annually to ensure they remain free of contamination.
- 3) Submit results to and obtain approval from the University Veterinarian (UV) prior to introducing biologicals into animals at UTSA.
- 4) Any use of vertebrate tissue at UTSA must be approved by the Institutional Biosafety Committee.