The University of Georgia

Office of the Vice President for Research

UGA IACUC Policy for Testing of Biological Materials to be Implanted or Injected into Live Laboratory Rodents

Approved by the UGA IACUC
Effective 4/15/2010
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Use of biological materials in laboratory rodents

Animal cells, tissues, and serum can transmit pathogens and infect laboratory rodents. This is a well-documented, high-risk activity for animal colony biosecurity. In order to protect laboratory rodents, cells and tissues should be tested for rodent pathogens before they are injected or implanted into rodents. Some rodent pathogens can also infect humans.

This policy applies to all mammalian cells and tissues from a rodent source; mammalian cells and tissues (including human) that have been exposed to or passed through rodents or rodent cells or serum; and non-mammalian agents cultured in rodents or rodent cells or serum. Examples of biological specimens considered under this description include, but are not limited to, immortal cell lines; hybridoma cells intended for ascities production; tumor cells; viral, parasitic, or bacterial agents cultured in rodent cells or serum; and rodent blood products, including serum.

All cells lines can be an occupational health hazard, regardless of origin and despite testing. This is particularly true when cells are implanted in immunodeficient rodents. Universal precautions must be used when handling cell lines, whether *in vivo* or *in vitro*.

Testing requirements for biological materials

Biological specimens as defined must be determined to be free of contamination with agents of concern before use in rodents. Failure to comply with this policy can make the PI responsible for the cost of managing outbreaks of disease due to the use of untested biologicals.

Testing procedures and resources

The URAR recommends polymerase chain reaction (PCR) testing of specimens. This service is available at different laboratories, including the University of Missouri's Research Animal Diagnostic & Investigative Laboratory (RADIL), which refers to it as Infectious Microbe PCR Amplification Test (IMPACT). Information about testing, prices, and shipment of specimens may be located at the website: http://www.radil.missouri.edu/info/index.asp.

The profiles of agents to be tested should be verified with your Attending Veterinarian as appropriate before testing is performed.

Specimens to be implanted into mice must be tested for the following agents of concern:

Agents	Abbreviations
Mouse parvovirus	MPV
NS-1 General parovovirus test	NS-1
Minute virus of mice (a parovirus)	MVM
Mouse hepatitis virus	MHV
Clostridium piliforme (Tyzzer's Disease)	CPIL
Theiler's murine encephalomyelitis virus	GDVII/TMEV
Epizootic diarrhea of infant mice (a rotavirus)	EDIM
Sendai virus	SEND
Pneumonia virus of mice	PVM
Reovirus	REO
Mycoplasma pulmonis	MPUL
Lymphocytic choriomeningitis virus	LCMV
Mouse adenovirus ()	MAV/ MAD1, MAD2
Ectromelia (mouse poxvirus)	ECTRO
K virus	K
Polyoma virus	POLY

Specimens to be implanted into rats must be tested for the following agents of concern:

Agents	Abbreviations
Rat parvovirus	RPV
H-1 (Toolan's) (a parvovirus)	H-1
Kilham rat virus (a parvovirus)	KRV
Rat Minute Virus (a parvovirus)	RMV
NS-1 General parvovirus test	NS-1
Sendai virus	SEND
Pneumonia virus of mice	PVM
Sialodacryoadenitis virus/Rat Coronavirus)	SDA/RCV
Reovirus	REO
Mycoplasma pulmonis	MPUL
Theiler's murine encephalomyelitis virus	GDVII/TMEV
Lymphocytic choriomeningitis virus	LCMV
Cilia associated respiratory bacillus	CARB

Previous testing may satisfy the policy requirements if appropriate documentation reveals the method, scope, and date of testing are adequate, and the specimens have not been passed through rodents or rodent cells or serum since the latest testing. Previous use in a colony of rodents for which concurrent health surveillance revealed no infectious agents may also be adequate. The principal investigator (PI) is responsible for providing the IACUC with suitable documentation of the specimen's source, history of use, and any previous testing. If testing is required, the PI is subsequently responsible for conferring with the Attending Veterinarian to determine which laboratory and testing methods are appropriate and providing documentation of testing results to the IACUC prior to initiating the work. If you are unsure about the requirements for any specific situation, please contact your Attending Veterinarian.