Georgia State University
Institutional Animal Care and Use Committee (IACUC)

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IACUC Chair Signature: [Signature]

It is the responsibility of the Georgia State University (GSU) Institutional Animal Care and Use Committee (IACUC) to ensure judicious and humane use of animals used in its teaching and research programs that is consistent with federal requirements*.

**Monitoring Biological Materials Guideline**

The injection of biological substances (e.g. typically animal or human tumors or non-tumor cells) into rodents can pose a health risk to animals and personnel. These biological substances have been a source of entry for a variety of rodent infectious disease agents into animal research facilities over the years resulting in disease which can affect animal health, confound research studies, and, in the case of zoonotic agents, can affect human health. Moreover, rodent pathogens can be carried and propagated by non-rodent (e.g. human) biological substances when these biological substances have been propagated in rodents or in vitro using rodent biological substances (e.g. using mouse serum).

The purpose of this policy is to address the mechanism by which biological substances (e.g. typically animal or human tumor or non-tumor cells) to be injected into rodents are to be cleared for use to avoid their introducing rodent infectious agents into the GSU rodent colonies. Similarly, there is a concern with the potential for contamination of biological substances of human origin with human pathogens as posing a risk to personnel handling the specimens or handling the animals harboring such xenografts. However, this particular topic is addressed by the policy entitled “Guidance for working with Human and NHP -derived Materials.”

Biologic substances that must be tested (or for which documentation must be provided verifying the appropriate testing has already occurred and found to be negative) include any that have originated from rodents as well as non-rodent biological substances which may have been exposed to rodents directly (in vivo passage) or indirectly (e.g. via tissue culture media additives); biological substances (regardless of species source) obtained from ATCC or other commercial sources as well as from colleagues require testing for the presence of rodent infectious agents (or documentation of appropriate testing having already occurred and found to be negative) prior to their administration into rodents as the history of these biological substances is typically unknown.
Some biological substances may not require testing (or documentation of having been tested) for the presence of rodent infectious agents prior to their being cleared for use in rodents. Examples of such exemptions are as follows:

- Rodent cells or tissues harvested from within a Specific Pathogen Free (SPF) GSU rodent colony and used for a single administration in other GSU-housed rodents so long as the recipient rodents are housed in a colony room of equivalent SPF status.
- Primary human cell lines or tissues (e.g. patient derived xenografts) which, by definition, have never been passaged in rodents or exposed to rodent biologicals.

Aliquots of biological substances requiring testing for rodent infectious agents prior to their injection into rodents are sent to a commercial diagnostic laboratory {the GSU Division of Animal Resources (DAR) typically utilizes IDEXX BioAnalytics} for a PCR assay (the Infectious Microbe PCR Amplification Test or IMPACT). Typically, IMPACT testing has a turnaround time of 3 business days after receipt of the sample. If the protocol involves the injection of biological substances (e.g. typically animal or human tumors or non-tumor cells) into rodents, please provide the DAR front office (mdavis1978@gsu.edu, 404-413-3560) the test documentation for the presence of rodent infectious agents. Alternatively, please make arrangements to have biological specimens tested before use in rodents by completing the DAR Biological Material Testing Questionnaire (https://forms.gle/JcNg3NTqnXsAy7R9A). Approval for the use of biological substances in rodents housed at GSU is required by the DAR veterinary staff prior to the use of such biologicals in the rodents.

Once the biological substance has been verified to be free of rodent infectious agents and thus approved by the DAR veterinary staff for use in rodents, the testing is good for 5 years at which time retesting is needed for continued use in rodents. The DAR front office will contact you 5 years after initial clearance to inform you of the expiration of approval and the need for retesting to re-obtain the approval status for use in rodents.

Pertinent Regulations*

U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training
Public Health Service Policy
Guide for the Care and Use of Laboratory Animals Animal Welfare Act (AWA) and AWA Regulations

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