Policy on Rodent Tumors

This document establishes the policy of the IACUC regarding the care and monitoring of tumor-bearing rodents at the University of Kentucky. Specific research requirements that deviate from this document must receive IACUC approval prior to initiating.

Policy

Rodent tumor models are critically important experimental model systems. In this regard, tumors may result from injection of tumor cells; exposure to carcinogens; germline genetic modification; or spontaneously. Regardless of origin, tumor burden may negatively impact the well-being of animals. The Principal Investigator must ensure that all personnel working with animals under the protocol clearly understand their individual and collective role(s) in meeting these expectations. Researchers performing tumor work in all animals must adhere to the following:

- All tumor-bearing animals must be observed on a scheduled basis as stated in the IACUC protocol to assess the progress of tumor growth and the general condition of the animal, the observations must be properly documented. Records must be readily available to veterinary and animal care personnel (preferably, cage side or within the animal room) and include at a minimum 1) identification of individual animals; 2) date(s) of monitoring sessions; 3) name/initials of individual observing the animals; 4) Size and condition of the tumor, as well as any other monitoring criteria such body weight or body condition of each animal; and 5) treatments given to the individual animals. It is further helpful for monitoring records to state the protocol-defined humane endpoints as a quick reference for those making observations.

- Animals on a tumor study must be monitored by research staff at least once a week during the time when tumors are not yet detectable to observe when tumor growth has begun. In the case of tumors or metastases that are internal, the animals must be monitored for change in body condition (e.g., Ullman-Cullere, 1999) or other evidence of tumor growth.

- Once presence of a tumor has been confirmed, animals must be monitored, and the condition recorded by the PI and/or staff at least twice weekly. More frequent observations may be necessary based on tumor growth rate, study parameters, and general condition of the animals as detailed in the approved animal protocol.

- For subcutaneous tumors the maximum allowable size is 20 mm in diameter for a mouse or 40 mm diameter for a rat. If the animal has more than one tumor, this

size is the maximum allowable size for all tumors combined. Exceptions to tumor size must be approved by the IACUC.

- The humane endpoints associated with tumor burden must be clearly described in the approved IACUC protocol and followed.

- Animals reaching any endpoint described in the IACUC protocol must be euthanized. Any animal determined by the DLAR veterinary staff to be experiencing unrelieved pain or distress must be euthanized. If the animal is severely ill, the Principal Investigator must ensure that euthanasia is performed within 2 hours of the endpoint having been identified; and within 24 hours if the animal is otherwise normal but has a tumor burden that exceeds the size limit or is ulcerated/abraded, or causes mobility restriction or inability to access food and water; or if the animal has a body condition score of ≤2 (Ullman-Cullere, 1999). The veterinary staff under the authority of the Attending Veterinarian may euthanize any animal determined to be *in extremis.*

Approved and Adopted by the IACUC
December 9, 2020

References

Ullman-Cullere MH, Foltz CJ. 1999. Body condition scoring: a rapid and accurate method for assessing health status in mice. *Laboratory Animal Science* 49:319-323.

University of Kentucky Division of Laboratory Animal Resources: Tumor Models in Rodents