

# **AUBURN UNIVERSITY**

## **Institutional Animal Care and Use Committee (IACUC)**

### **Policy on Humane Endpoints**

Discomfort to animals must be limited to that which is unavoidable for the conduct of scientifically valuable research, and that unrelieved pain and distress will only continue for the duration necessary to accomplish the scientific objectives.

The criteria used for intervention in research studies to prevent unnecessary pain and distress are called “humane endpoints” because they describe when it is time to either:

- Euthanize an animal to prevent suffering;
- Discontinue a painful procedure; or
- Remove an animal from a study.

Common examples of endpoint criteria include a limit on weight loss as a percentage of body weight; anorexia for an extended time; sudden pain or distress that cannot be controlled with analgesics, sedatives or tranquilizers; impaired ambulation (unable to reach food or water easily, inability to remain upright); difficulty breathing; central nervous system disturbances; or severe medical conditions that cannot be controlled with appropriate therapy (e.g., severe systemic infections, kidney or liver failure, heart disease).

More specific criteria are often used for certain types of studies. For example, endpoint criteria used for rodent cancer studies involving the growth of tumors under the skin often include maximum tumor volumes or tumor weight as a percentage of body weight, skin ulceration over the tumor, interference with normal gait or movement, and interference with normal feeding and drinking behaviors.

Novel studies for which there is little or no information in the literature may require pilot studies to define humane endpoints. In such cases the IACUC must ensure that mechanisms are established for consultation with the PI, attending/project veterinarian(s) and frequent reporting of defined endpoints to the IACUC. These mechanisms will be defined prior to granting protocol approval.

The use of death as an endpoint in animal experiments is strongly discouraged. Investigators are encouraged to administer euthanasia in death-end-point experiments prior to the actual death of the animal unless a compelling case can be made that experimental validity would be irrevocably compromised. If experimental death itself is the required endpoint, the investigator must first receive approval to conduct such studies by providing strong scientific justification to the IACUC. Inconvenience or increased costs alone are not justifiable reasons.

Federal law authorizes veterinary staff to euthanize animals in states of unauthorized, uncontrolled pain or distress. The PI should work closely with the Project Veterinarian in cases where uncontrolled pain or distress may develop.

Humane endpoint criteria should be addressed on the IACUC protocol form when it is anticipated that an animal will endure painful or distressful conditions. Humane endpoints should be discussed with the project veterinarian.

REVISED: December 18, 2012  
REAFFIRMED: October 4, 2021