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IG011: ESTABLISHMENT OF HUMANE INTERVENTIONS AND ENDPOINTS

A humane endpoint can be defined as: ‘the earliest indicator in an animal experiment of (potential) pain and/or distress that....can be used to avoid or limit pain and/or distress by taking actions such as [euthanasia] or terminating or alleviating the pain and distress’ (Hendriksen and Morton, 1999). To learn more about how to determine humane endpoints for research animals visit the [Humane Endpoints website](https://www.humane-endpoints.info/en) <<https://www.humane-endpoints.info/en>>.

The humane endpoint is in contrast to the “experimental endpoint” of a study, which occurs when the proposed scientific aims and objectives have been reached.

The use of humane interventions/endpoints provides an alternative to experimental endpoints that may otherwise result in unrelieved or severe animal pain and distress including death. The humane intervention and/or endpoint should be relevant to the study and objective.

To best assess proposed humane endpoint considerations in a protocol, the IACUC and veterinary staff will need the following key information to be included in the animal use Protocol:

- precise definition of the humane endpoint (including assessment criteria)
- consideration of species-specific body condition scoring (BCS) algorithms
- frequency and scheduling of animal observation, to include increased frequency of body weight measurements, and assessments of appetite, attitude, mobility, etc with progression of the study
- training of personnel responsible for assessment and recognition of described humane endpoints
- actions to be taken for animal health preservation upon reaching a described humane endpoint

Establishment of species-specific study-appropriate humane interventions and endpoints should involve the research team (Principal Investigator), a CAR or Farms Veterinarian, and representatives from the IACUC. Humane endpoints are to be defined (when possible) prior to the initiation of the study. Please contact carvets@msu.edu with any questions or consultation requests on defining humane endpoints.