HUMANE ENDPOINTS REGARDING SEVERE OR CHRONIC PAIN OR DISTRESS

This policy provides a guideline of default endpoints for animal research studies, for use by principal investigators (PIs) and project personnel, when either anticipated or unanticipated, severe or chronic pain or distress occurs. If the PI does not identify and justify alternative endpoints in a protocol application that has been approved by the IACUC, the circumstances described below (in Section A) will trigger the termination of the experimental procedures and possibly the euthanasia of the animals involved. If an animal research study involves death as an endpoint, the PI shall include the information required by Section B below in his/her protocol application.

A. Default Endpoints

Unless a PI identifies and adequately justifies alternative endpoints and the IACUC approves them, endpoints for laboratory animals, including, but not limited to, nonhuman primates, dogs, cats, pigs, sheep, goats, rabbits and rodents, will be triggered by any of the following conditions:

1) Loss of 20% of body weight from baseline weight when assigned to the protocol. A growth nomogram must be used to adjust the basal weight for growing animals.
2) Organ failure or major medical conditions that are unresponsive to treatment such as respiratory distress, icterus (jaundice), uremia (loss of renal function), intractable diarrhea, self-mutilation or persistent vomiting.
3) Surgical complications that are unresponsive to immediate intervention; i.e. bleeding, vascular graft/circulation failure, infection, and wound dehiscence (rupture of sutures).
4) Rodents that have complete anorexia for 2 days or non-rodents that display anorexia for 4 days.
5) Other clinical or behavioral signs in rodents or non-rodents that are unresponsive to appropriate intervention. In the case of rodents, these are defined as abnormalities persisting for 24 hours and for non-rodents, for 48 hours. Abnormalities would include -
   a) inactivity
   b) labored breathing
   c) sunken eyes
   d) hunched posture
   e) piloerection/matted fur
   f) one or more unresolving skin ulcers
   g) abnormal vocalization when handled
   h) tumors that affect normal function or that become ulcerated
   i) persistent coughing
   j) excessive scratching or inability to rest due to dermal changes

The circumstances described above represent a conservative minimum and are not necessarily consistent with pain- and distress-free research. In his/her protocol applications, the PI is encouraged to identify earlier, more refined endpoints that avoid or minimize discomfort, distress and pain to the animals and that are compatible with experimental objectives.
If the LARC or laboratory staff identify an animal that displays any of the behaviors described above, the LARC or laboratory staff shall immediately report their observations to the PI and the Institutional Veterinarian (IVet). If the PI identifies an animal as having any of the behaviors described above, he/she shall immediately follow this policy and euthanize the animals. If an animal has any of the endpoints identified above and the PI feels that the animal should not be euthanized, the IVet should be consulted immediately. In this circumstance the IVet will make the final, clinical decision regarding the need to euthanize the animals.

B. Death Endpoints

If the protocol involves death as an endpoint, the following shall be included in the protocol:

1) Written justification including discussion of alternative endpoints.
2) Justification of the numbers of animals to be included.
3) Justification for non-use of analgesics if this is so.
4) At least twice-daily monitoring once animals exhibit abnormal signs.
5) Maintenance of written records of animal behavior.