## 人道的エンドポイントについて(英語版)

## Commentary 6

## **Humane Endpoint**

The humane endpoint refers to the timing of termination of an experiment (in other words, the timing of the application of euthanasia procedures) to release a laboratory animal from severe pain and suffering. It is a term used in contrast to "death" as an endpoint that is used in protocols of animal experiments where the experiment continues until the animal's death.

- \* As a rule, euthanasia procedures should be available for termination of animal experiments.
- \* At the final stage of an animal experiment or when analgesics, sedatives or other agents do not provide relief, euthanasia procedures should be performed to release the laboratory animal from pain and suffering (one pain relief method).
- \* Indications of when humane endpoint is applicable include food and water intake difficulties, moribund symptoms (self-injurious behavior, abnormal posture, respiratory disorders, vocalization, etc.), abnormal appearance over a prolonged period with no visible indications of recovery (diarrhea, bleeding, soiled genital area, etc.), weight loss (20% or more over several days), and marked increase in tumor size (10% or more of body weight).
- \* Reference should be made to pertinent international guidelines for details concerning determination of the humane endpoint.
- \* When conducting animal experiments in which the degree of pain and suffering is high, such as lethal toxicity studies, infection experiments and radiation experiments, the principal investigator should examine setting of the humane point in the planning stage of the animal experiment.