BACKGROUND

For investigators studying arthritis models either by induction (adjuvant, collagen, etc.), genetically engineered or spontaneous models, the following are guidelines to ensure animals receive appropriate care to minimize pain or discomfort.

POLICY AND PROCEDURE

1. Footpad injections with Complete Freund's Adjuvant (CFA) are not acceptable unless scientifically justified in your protocol and approved by the IACUC.
2. The use of intradermal injections must be scientifically justified over other routes of administration and must be approved by the IACUC.
3. Routes, volumes, dosages, dosing schedules, and contents of injections must be written into the protocol.
4. All injection dates will be written clearly on the cage card to facilitate care of animals with husbandry staff.
5. The site of injection will be monitored daily post-injection for evidence of severe inflammation, ulceration, or for very large granuloma formation.
6. The animals will be monitored daily for evidence of pain, distress, or infection resulting from the injection. The protocol will state what will be done to relieve the pain and distress for animals showing these signs.
7. A schedule for monitoring animals and injection sites must be included in the protocol.
8. If early signs of infection at the injection site are detected, the veterinary staff will be consulted regarding treatment versus euthanasia.
9. If an animal has an ulcerated injection site, information on the site must be documented (e.g., size status, severity) a minimum of every other day by the PI or his/her staff. Animals must be treated and observed daily or euthanized if there is evidence of significant infection.
10. Arthritis measurements will be determined regularly after animals show difficulty ambulating or pain on manipulation of affected joints. The frequency of these measurements is stated in the protocol. A description of how measurements are performed will be stated in the protocol.
11. When severity of arthritis prevents easy access to food and water, the husbandry staff will facilitate access to food and water.
12. Animals in painful studies such as adjuvant arthritis must be administered effective analgesics unless the lack of analgesics is scientifically justified in your protocol.
13. Adjuvant arthritis experiments will be terminated by day 30 following initial adjuvant injection unless described in your protocol and approved by the IACUC. Animals will also be euthanized if:
   a. Weight loss exceeds 20%,
b. Animals are unable to eat or drink,
c. Evidence of joint swelling > 50% of baseline
d. Evidence of self trauma to the joint (which would indicate excessive pain in the joint)
e. Excessive skin breakdown occurs in arthritic joints, or
f. General health of the animal is at a level requiring euthanasia for humane reason

14. It is a violation of federal guidelines if the condition of the animal is found not to be in accordance with the approved protocol on daily health checks by the animal care staff or the PI. The IACUC recognizes that unexpected results may occur and the PI may need to submit an amendment to apply for exceptions to these guidelines at a critical time period in an approved protocol.

REFERENCES

UCSD Policy and Guidelines on Arthritis Studies
http://iacuc.ucsd.edu/policies/Policy4.01.pdf

Guide for the Care and Use of Laboratory Animals, 8th Edition (2011)