Arthritis Model Guidelines

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.

For investigators using adjuvant to induce arthritis, please refer to UF's "Guidelines on Acceptable Immunological Procedures for Polyclonal Antibody Production" on IACUC's website for more information.

Care of Animals

1. At time of induction or beginning of study, a baseline weight of each animal and circumference of joints will be obtained and recorded in a clinical chart. Records should be available upon request to the IACUC or veterinary staff.
   Body weight, body condition score (refer below) and joint circumference should be monitored weekly once clinical signs are evident.
2. Animals will be monitored at least daily, including weekends and holidays. For protocols involving multiple joints, animals will be categorized as follows:

Severity Scores	Degree of Inflammation
0	No evidence of erythema or swelling
1	Erythema and mild swelling confined to one joint
2	Erythema and mild swelling involving more than one joint
3	Erythema and moderate swelling involving more than one joint
4	Erythema and severe swelling involving multiple joints and joint malformation or ankylosis

3. Animals that reach a severity score of 2 (more than one joint involved), body weight and joint circumference must be monitored twice a week and recorded in a clinical chart.
4. Animals that reach a severity score of 3 must be monitored daily by lab for use of limb (weight-bearing). **If animal becomes non weight-bearing, animal requires analgesics if appropriate for study or is considered at an endpoint with immediate euthanasia.**
5. **Every mouse that reaches severity score 4 will be considered an endpoint with immediate euthanasia.**
6. **Any animal with >15% body weight loss or a BCS score of 2 or less or a 40% increase in joint circumference, or ulceration of joints is considered an endpoint with immediate euthanasia.**

For investigators that need to allow animals to progress further than above guidelines, appropriate scientific justification must be provided in Animal Care and Use Protocol.

The body condition can be scored on a scale of 1 through 5.
(http://iacuc.ufl.edu/AnimalUseGuides/BodyCondition.pdf)

BC 1
Rat is emaciated

- Segmentation of vertebral column prominent if not visible.
- Little or no flesh cover over dorsal pelvis. Pins prominent if not visible.
- Segmentation of caudal vertebrae prominent.

BC 2
Rat is under conditioned

- Segmentation of vertebral column prominent.
- Thin flesh cover over dorsal pelvis, little subcutaneous fat. Pins easily palpable.
- Thin flesh cover over caudal vertebrae, segmentation palpable with slight pressure.

BC 3
Rat is well-conditioned

- Segmentation of vertebral column easily palpable.
- Moderate subcutaneous fat store over pelvis. Pins easily palpable with slight pressure.
- Moderate fat store around tail base, caudal vertebrae may be palpable but not segmented.

BC 4
Rat is overconditioned

- Segmentation of vertebral column palpable with slight pressure.
- Thick subcutaneous fat store over dorsal pelvis. Pins of pelvis palpable with firm pressure.
- Thick fat store over tail base, caudal vertebrae not palpable.

BC 5
Rat is obese

- Segmentation of vertebral column palpable with firm pressure; may be a continuous column.
- Thick subcutaneous fat store over dorsal pelvis. Pins of pelvis not palpable with firm pressure.
- Thick fat store over tail base, caudal vertebrae not palpable.