Loyola University Chicago
Comparative Medicine Facility

Standard Operating Procedure

SOP Number: **02-18-5212**
Service: **Research**
Operating Section: **Clinical Medicine**
Unit: **CMF**
Title: **Body Condition Scoring System for Rodents**

Purpose:
To outline the scoring system used to evaluate body condition in rats and mice.

Procedure:

1) Body Condition Scoring (BCS): Scoring of body condition assesses overall health, nutrition, and performance. This body condition scoring employs a 1-5 scale, with mid-range values representing more optimum body condition, lower values representing lean or emaciated conditions and higher values representing excessive body fat.

2) Assessment of body condition should be conducted by observation and palpation. The following areas should be palpated for the evaluation of the animal:
   a) Hips/Pelvis (ilium, sacrum, ischium)
   b) Spine (thoracic and lumbar)
   c) Thorax (ribs and scapula)
   d) Muscle mass (epaxials, gluteals, deltoids)
   e) Subcutaneous fat
   f) Fat deposits (abdominal, inguinal, axillary)

3) The following body condition scoring will be used for rats:
   a) BC1 – Emaciated – Segmentation of vertebral column is prominent if not visible. Little or no flesh cover over dorsal pelvis. Pins prominent if not visible. Segmentation of caudal vertebrae prominent.
   b) BC2 – Under Conditioned – Segmentation of vertebral column is prominent. Thin flesh cover over dorsal pelvis, little subcutaneous fat. Pins easily palpable. Thin flesh cover over caudal vertebrae, segmentation palpable with slight pressure.
   c) BC3 – 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.
   d) BC4 – Over Conditioned – Segmentation of vertebral column palpable with slight pressure. Thick subcutaneous fat store over pelvis. Pins of pelvis palpable with firm pressure. Thick fat store over tail base, caudal vertebrae not palpable.
   e) BC5 – 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.

4) The following body condition scoring will be used for mice:
   a) BC1 – Emaciated – Skeletal structure extremely prominent; little or no flesh cover. Vertebrate distinctly segmented.
   b) BC2 – Under Conditioned – Segmentation of vertebral column evident. Dorsal pelvic bones are readily palpable.

c)   BC3 – Well Conditioned – Vertebrae and dorsal pelvis not prominent; palpable with slight pressure.
d)   BC4 – Over Conditioned – Spine is a continuous column. Vertebrae palpable only with firm pressure.
e)   BC5 – Obese – Mouse is smooth and bulky. Bone structure disappears under flesh and subcutaneous fat.

OFFICE USE ONLY:

APPROVALS

Responsible Official Signature		Date 06/26/19
QA Signature		Date 06/26/2019
Version #2	Effective Date Supersedes #1	Original Date