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DEPT: ANATOMY

MAT NO: 17/MHS01/315

COURSE CODE: ANA314

Assignment: what is comparative anatomy?

>1. Comparative anatomy is the study of similarities and differences in the anatomy of different species. It is closely related to evolutionary biology and phylogeny{the evolution of species}

>2. Highlight the criteria necessary to caring for laboratory animals

Temperature and humidity for mouse/rats: temperatures of 65-75\*F (-18-23\*C) with 40-60% humidity rate are recommended.

For practical considerations, due to the common work hours, researchers should be aware of the lighting schedules used in the rodent housing rooms (commonly 12hrs light: 12 hrs dark or 14hrs light : 10hrs dark).

Ensure lights are not used and that researchers and technicians do not enter the mouse room during the dark cycle.

Ventilation

Routine sanitation and environmental controls are necessary for protecting animal health and for minimizing the introduction for non experimental variables which could undermine the quality of research data.

Sanitation schedules vary according to the type of vertebrate animal caging.

Animal crowding in a cage affects environmental quality (the accumulation of urine, for example, leads to excess ammonia and moisture).

Crowding can also cause newborn pups to be injured or killed.

In particular, if a mother is about to give birth to a second litter, the first litter should be weaned and removed to new cages to prevent smothering and trauma of the newborns.

>3. Highlight the similarities and differences in the digestive system anatomy of amphibians.