Glucose tolerance test.v6

1. Maintain mice in a normal light/dark cycle (7:00/19:00) according to the standard protocols of the University of Virginia Animal Care and Use Committee. Perform the test for the mice with age matched or litter mate controls with a minimum of 8 mice per group.

2. Remove food by changing to a new cage <u>without </u>food and <u>with</u> water at 8:00 am the day of the experiment (place DO NOT FEED card in the cardholder).

3. Start the glucose tolerance test at 2 pm. Weigh the mice and nick the tail with a pair of scissors at the very end to remove roughly 0.25 cm of the tail. Clean the scissors with 70% alcohol twice after each mouse. Measure the baseline blood glucose by using a glucose meter (Ascensia, Bayer)**.** Transfer each mouse to a clearly marked individual cage.

4. Inject filter sterilized D-glucose (200 mg/ml, i.p.) at 2 mg/g in normal saline (Keep glucose on a slidewarmer at 37°C before injection). Set up the timer. Start injecting other mice with fixed interval, e.g. 30 sec.

5. Measure blood glucose at 30, 60, and 120 minutes by gentle massage of the tail and spotting the blood onto the glucometer strip.

6. Make sure that the mice do not have excessive bleeding. Return mice to the housing colony after the test.