Timed Breeding

Standard Operating Procedure

3-13-17

Timed breeding is essential to the fostering program at BYU. It allows breeding managers to have foster mothers ready at the same time as birth mothers, reducing difficulties and pathogens in the strains. It is vital that the entire process is recorded and communicated to all parties involved. This decreases the chances of mistakes and increases the chances of cleaning strains in one generation. Note: foster moms (CD1s) have a 21-day pregnancy; the birth moms’ pregnancy timing will be strain specific. Factor this into your planning.

For timed breeding:

1. Foster moms need to have their pups first so they will accept the birth pups. Start the foster mating one or two days before the birth mother mating. To start this:
2. Two days before breeding, place some of the male's bedding in the female cage and some of the female's bedding in the male cage. This will help the mice recognize the pheromones of the other when they breed.
3. Pair together one male and one female or one male and two females in the afternoon. Place the mating pairs or trios in the male's cage with regular feed.
4. Check for plugs twice a day (once in the early morning and once in the evening) as explained in the Checking for Plugs SOP.
5. When a plug is found, separate female mouse from the male mouse and indicate with whom she bred. Put high fat feed in the female's cage.
6. If a plug is not found by day 4 of breeding, separate male and female mice.
7. Eight or nine days after the plug has been identified, weigh the female mice to see if weight gain matches pregnancy weight gain. This will prove or disprove pregnancy.
8. Three days before the birth mom gives birth, change her cage three times a day.
9. Follow the steps from the Fostering SOP.

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