

Unilevel pacing chamber

Objectives:

During sexual interactions, a sexually receptive female rat approaches and withdraws from a sexually vigorous male, thereby controlling the timing of the receipt of sexual stimulation, i.e. the frequency of mounts, intromissions and ejaculations she receives from the male (McClintock and Adler, 1978). This pattern of approach and withdrawal from the male is defined as **paced mating behavior** or **pacing behavior**. Mating can have aversive consequences for females but the aversive properties of mating are greatly reduced when the females are able to pace their sexual contacts (Paredes and Vasquez, 1999). Accordingly, pacing behavior is a good index of **sexual motivation** and may serve to measure the effects of pharmacological agents on female sexual desire.

Summarized methodology:

Copulatory tests are performed in a unilevel pacing chamber. This device consists of semicircular chambers (60 x 40 x 40 cm) bisected by a clear Plexiglas divider with three holes cut into the bottom that rest on bedding. These holes are large enough to allow the female to cross through but small enough to prevent the males from doing the same. Prior to sexual contact, males and females are acclimated separately to the unilevel pacing chamber. Once the animals are sexually experienced, copulatory tests are conducted to measure and compare male and female sexual responses either before (baseline) and after treatment administration, or between groups (males or females according to the goal of the study) receiving different treatments.

Endpoints:

- Primary endpoints : female sexual motivation :
 - number of solicitations and hops and darts
 - number of exits of the female after mounts, intromissions or ejaculations
 - latencies to return to the side hosting the male after a mount, intromission or ejaculation
 - number of crossings between the two compartments
- Secondary endpoints :
 - female receptivity : lordosis quotient and intensity
 - male copulatory behaviour (mounts, intromissions, ejaculations)



Figure1: Copulatory tests in unilevel pacing chamber.

Related Pelvipharm bibliography:

Rössler, A.S. et al. **Pharmacol Biochem Behav** (2006) : 85 : 514-521

Links to applicable therapeutic areas / targeted disorders:

- Sexual pharmacology

- * ED (Erectile Dysfunction)
- * Ejaculatory Disorders
- * FSD (Female Sexual Dysfunction)