

- Animal models of sexual behavior can be used to investigate compound effect on delaying ejaculation i.e., a drug candidate to treat premature ejaculation (PE). Besides, this model has predictive value for the sexual (side) effects of drugs in humans.
- As originally proposed by Beach (1956), male sexual behavior can be divided into a minimum of two conceptually distinct components:
 - **An appetitive/motivation**, corresponding in rat to search and approach of a sexually receptive female
 - **A consummatory/performance**, refers in rat to copulation including mounts, intromissions, and ejaculations (figure 1).

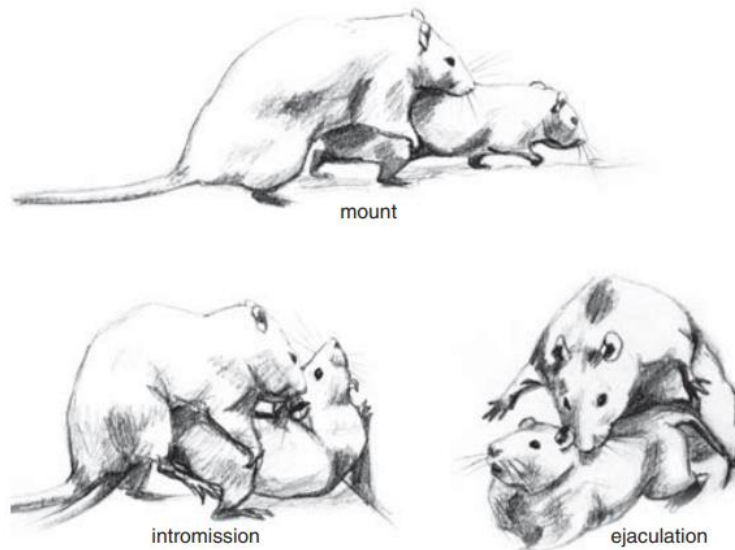


Figure 1: Illustration of sexual behaviour: mount, intromission and ejaculation (From Timmermans, 1978)

- Behavioral studies can be performed either in non-categorized or categorized rat, categorization being performed using mating tests.
- From standardized mating tests with sexually receptive female rats conducted in our laboratory, the number of ejaculations was found to follow a Gaussian distribution (figure 2). Thus, a sub-group of rats displays a short latency of ejaculation, thereby modeling premature ejaculation.

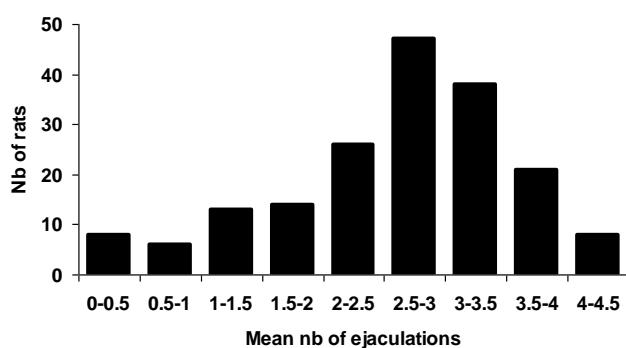


Figure 2: Histogram of the ejaculation frequency in 125 male Wistar rats tested in unilevel chamber (Pelvipharm, internal data).

Endpoints

- Mount frequency (MF): number of mounts without vaginal penetration (insertion) preceding ejaculation.
- Intromission frequency (IF): number of mounts with vaginal penetration (insertion) preceding ejaculation.
- Ejaculation frequency (EF): number of ejaculations displayed by the rat during the copulatory test.
- Mount latency (ML) or First mount latency: time from the introduction of the female until the first mount.
- Ejaculation latency (EL): time from the first copulatory event (mount or intromission) to ejaculation for an ejaculatory series.
- Post ejaculatory interval (PEI): time between ejaculation and the next mount or intromission of the next ejaculatory series.
- Intromission ratio (IR): number of intromissions divided by the number of mounts and intromissions ($IR=IF/(MF+IF)$).

Related Pelvipharm bibliography:

Borgdorff A J *et al.* **J Sex Med** (2009);6(8):2197-205
 Clément P *et al.*, **J Sex Med** (2009);6:980-988.