

# LYON HYPOTHESIS

- M. F. Lyon (1961) was the first worker
- In female somatic cells, only one X chromosome is active.
- The second is inactive, condensed and appears in the form of sex chromatin in interphase.
- Inactivation occurs in early embryonic life.
- Inactivation is random but fixed.
- Mechanism - methylation of DNA.
- Area - Proximal part of long arm of chromosome.
- In Marsupials in contrast, the paternally-derived X-chromosome is always inactivated in the female animal.