

# "Spermatogenesis"

- Spermatogonia → Spermatozoa
  - Initiated only at puberty
- Spermatogonia: Present in sex cords of testis as large pale yellow cells at birth

## ' Release of LH from Pituitary '

- Binds to Leydig cells → They release Testosterone → Testosterone binds to Sertoli cells → Increases Sperm maturation

## ' Release of FSH from Anterior Pituitary Gland '

- Increases Intracellular Androgenic Receptor Proteins (IARP)
  - Increases seminal fluid

## ' Steps of Spermatogenesis '

- PGCs → Mitosis (due to above mentioned hormones) → Stem Cells → Mitosis → Type A Dark Spermatogonia → Mitosis → Type A Pale Spermatogonia → Mitosis → Type B Pale Spermatogonia → Mitosis → Primary Spermatocyte → Meiosis-1 (arrested 22 days in prophase) → Meiosis-2 → Spermatids → Spermatozoa

## ' Steps of Spermiogenesis '

- Only "Spermatids → Spermatozoa" occurs by spermiogenesis
  - Steps involved are:
    - 1) Acrosome formation (has lysosomal enzymes and mitochondria)
    - 2) Nucleus condensation
    - 3) Neck, Middle piece, Tail formation
    - 4) Residual Body Formation