

Ovarian Cycle

' Control of Ovarian Cycle: '

- By Hypothalamus (arcuate nucleus)
- Release GnRH → Anterior lobe of Pituitary gland → Release Gonadotropins (FSH and LH)

' Hormones in Ovarian Cycle: '

- FSH and LH: Hypothalamus
- Estrogen: Theca Interna + Granulosa cells (follicles)
- Progesterone: Corpus Luteum

' Action of FSH '

- 15-20 primordial follicles rescued
- Primordial follicle → Growing follicle → Primary Follicle (which start to release Estrogen)
- FSH does not act upon these follicles rather the process occurs in it's presence

' Action of Estrogen: '

- Feed forward response
 - Acts on the uterus
- Uterine Endometrium enters Follicular or Proliferative stage
 - Cervical mucous thinning
- Decreases FSH production (negative feedback)

' LH Hormone Surge: '

- Meiosis-1 completed
 - Meiosis-2 initiated
- [Meiosis-2 completes at graffian follicle stage with Secondary Oocyte stage after fertilization]
- Increase in estrogen and decrease in FSH triggers this surge
 - Causes release of Progesterone